<400> 2543
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atcgaagaga cggacagccg ggaggatatc gattggttat gcaagaaaat cgtaaatctc     180
cgtatttttg acgacgaaaa cggagttatg aataaatcaa tccttgaaga cgaaggtaac     240
atattggttc ttagtcaatt cacactacat gcgtctacta aaaaaggaaa tcgtccatcc     300
tacataaagg ctgctaaacc ggaaatttca atcccacttt acgaacaatt ctgcaatgat     360
ttgagttgtg cattagggaa agaagtgaaa acaggagaat tcggagccga catgaaagta     420
gagttattga acgacggacc tgtaactatt tgcatcgata ccaaaaacaa ggaataa        477
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<210> 2544
<211> 576
<212> DNA
<213> B.fragilis

<400> 2544
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accaggaaaa gacgctccca tgcccttccg cagacacttc cgcccctgag cgcgagtccg      60
ccgtttccac aaaatccaac aatcatggct aaatacaaat taacgctcaa aaaaaatccg     120
aacaagagaa acgaacccgg aaaatggtac gccatcccca ccaccgtgaa cagcctcgac     180
acccgggccg tcaccgggc cgtgacacgc aacaccaccg tggcccccac cgaactggag       240
acttcgatga acctcgtatg cgacggtatc cccgccctgc tgcaacaggg caacagcgtc      300
cgcatcgggt cgctcggcac cctgcgcctc tccttcggca gcaccgggac ggagaacatc      360
gacgacttca acgccgccac gatgatcaaa aacgtcaaga tcgtcttcac accctccaag      420
gagctgaaag ccgccgtaca ggagggactc tcgttcgaga acgcgggagt gatcgaaacg      480
ggattcacct accccagcgt gcaggactac aagaagtaca aagtggccga ccgaccggcg      540
ggcggcggcg acatcgtgga cgatcccacg gcctga                                576
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<210> 2545
<211> 912
<212> DNA
<213> B.fragilis

<400> 2545
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ccctcgccac gggtattgtg cgatgttatc gaattagcgc gttccattct ctttcccgga     180
tattacggaa actcaacagt caacagccgg actatcaatt accacattgg tgtcaatgta     240
gaaaagctgt tcaatctgct aacagagcag attctcgccg gtttatgttt cggtaatggt     300
gaccggtgcg atgaatgtac cgaggccaaa cgtgaagaag cagcgcgcct ggctgccaag     360
tttatcagca aactaccgca cttgcgccgt gtcctggcta cagatgtgga agctgcttac     420
aacggtgacc cggctgcaca aagtttttggt gaagtgatct tctgctatcc ggccatcaaa    480
gccatcagca actatcgcat cgcccacgaa cttctggaat tgggtgtacc gcttatcccc     540
cgtatcatca ccgaaatggc acatagcgaa accggtatcg acatacatcc gggagcaaga    600
atcggcacac atttcacgat cgaccatgga accggtgtag tgattggtgc gacaagtatc     660
atcggtaata atgtgaaact ctatcaggga gtgacattgg gtgccagaag cttcccctg     720
gatgctgacg gcaaacctat taaaggcatt ccacgtcatc cgattctgga agataacgtg     780
attgtatact ccaatgccac cattctgggc cggattacca tcgggcgtga tgcgaccgta     840
ggcggtaaca tctgggtgac agagaacata ccggcagggg caagaatcgt acagacaaaa    900
gcgaaaaaat aa                                                          912
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<210> 2546
<211> 1896
<212> DNA
<213> B.fragilis

<400> 2546
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gaaataaaca ttgattcaat ggattttaag tacgacgtta ttgtaattgg tgccggacat      60
gcaggctgcg aagcagcagc agcggcagca aacttaggct caaaaacctg cttgatcact     120
```

```
atggatatga acaaggtagc gcaaatgagc tgtaaccccg ccgtaggagg gattgctaaa      180
ggacaaattg tacgtgagat agacgcttta ggcggatata tgggattggt aacagatcag      240
acagctatcc agttccgcat actaaaccgc tcgaaaggac cggccatgtg gagtccccgc      300
gcccaatgtg accgaaacaa gtttatctgg gcctggcgcg aaatattaga aaatatcccg      360
aaccttcata tctggcaaga tactgtaaag gaaatcatcg ttgaaaacgg tgaagttgtg      420
ggattaaaaa cattttggga tgtgacgttt cacgccagat gtattgtatt aacagcagga      480
accttcttga acggattgat gcatgtagga aaaactcaac tcccaggtgg acgcatggca      540
gaaccggcat cgtataaatt aaccgaatcc atcgcagaac atggcattga gtacggtcgg      600
atgaaaaccg gaacccccgt acggattgac ggaagaagtg tacactatga gctgatggat      660
acccaagatg gagaatgtga ctttcacaag ttttcattca tgaataccag cgtgcgtcac      720
cttaagcaat tgcaatgctg gacatgcttt actaatgaag aagcacataa tgttcttcgt      780
aacggattag cggattctcc ccttttcaac ggacaaatac aaagtatcgg cccgcgctat      840
tgccctagca tcgaaacgaa gatcgtcacc ttccccgaca aagagcaaca ccagctattc      900
cttgaaccgg aaggagaaac cacacaagaa ttatacctga atggattctc ttcttcattg      960
ccaatggaga tccaaataga agcactaaaa aagatccctg cttttaaaga cctggtgatt     1020
tatcgtccgg gatatgccat cgaatacgat tatttcgatc caacgcaact aaaacatacg     1080
ctggaatcga agaaaatcaa aaacctcttc ttcgccggac aagtaaatgg tactaccgga     1140
tatgaagaag caggaggaca aggtatcatt gcaggtatca atgctcacat caactgccac     1200
ggtggagaac ctttcacttt agcaagagac gaggcatata tcggcgtatt aatagacgac     1260
ttggtgacca aaggggtaga tgagccttat cgtatgttta cttcacgagc agaatatcgt     1320
attctacttc gtatggatga tgcggacatg cgacttacag aaagagccta taaactggga     1380
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gtaaacttta cccgcaatta ttcgatcaag gcagcattaa taaacgatgc acttgagaat     1500
ttaggaacga ctcccctgcg tcaaggatgc aaactgatcg acttgattaa ccgtccacag     1560
attacaatag aaaatatctc cgaatatgta ccggcatttta aacgggaact ggataaaatc     1620
acagatgaac gaaaagaaga gattctggag gccgctgaga ttttaatcaa atatgaaggc     1680
tatattggac gggaagaat tatagcagac aaactggcac gattggaaag tattaaaata     1740
aaaggtaagt tcgactatga cagccttcaa tcactttcga ccgaagcccg gcaaaaactg     1800
aagaagatcg accccgaaac aatagctcag gcaagccgca tccccggcgt gtcaccaagc     1860
gacatcaatg tattattagt gctttcggga cgatag                               1896
```

<210> 2547

<211> 1365

<212> DNA

<213> B.fragilis

<400> 2547

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catactggca tgttatccat ttttatgagc gaacaatttg aaatgattgc caaaaccttt      60
caaggactgg aagagatact ggctgaggaa ttgacaacac ttggggcaaa cgacgtacaa      120
ataggccgcc gcatggtctc gtttaccggt gacaaggaga tgatgtacaa agcaaatttc      180
tgcctgcgta ccgcaatccg tattttaaaa ccaattaagc acttcaccgc aaaagacgct      240
gatgctgtat atgaacaaat caaagccatc cgttgggaag aaatcctgga tgtagacaaa      300
acctttgctg tcgacgcagt agtattcagc gatgaattcc gccactccaa gtttgtctca      360
tacaaagtaa aagatgccat tgtcgattat ttccgcgaat tgaatggaaa acgcccttct      420
gtgcgtatca gtagaccgga tgtactactg aatatacaca ttgcacagac tacctgtacg      480
ctttcactcg attcatcggg cgaatcgctc caccgcagag gttaccgtca ggaagccgta      540
gaagctccat taaatgaagt tctggccgcc ggtatgattt tgatgaccgg atggaaaggc      600
gaatgcgacc tgattgaccc gatgtgcggt tcaggtacta ttcccattga agcagccctg      660
attcccgta atatcgcgcc gggagtgttt cgcaaagagt ttgcttttga aaaatgggga      720
gatttcgatc aaaacctgtt cgaccggatc tacaacgacg acagtcagga cgtgaatttt      780
acccacaaga tatacggtta tgacaacaat cccaaagcca acgaaatcgc aacgcacaac      840
gtgaaggcag caggggtatc aaaagacatt atcctgaagt tgcaaccgtt ccagcaattc      900
gaacagccgg ctgaaaaatc gatcattata accaatcccc cttacggaga acgtatttcg      960
accaacgact tgctgggact gtacaatatg atcggcgaac gcctgaaaca cgcttttgtg     1020
ggtaacgatg catggatact ttcttatcgt gaagagtgtt cgatcagat tggcctgaaa     1080
ccgagcgtaa aaactccctt attcaacggt cctttggaat gtgaattccg taaatatcag     1140
attttcgacg gtaaatataa ggaattcaaa agccaggaag gcggtgatga aaacggtgaa     1200
cgtgctccga aggaagaag agagttcaag ccgcgccggg aggaaggcgg tttcagagga     1260
gaaagaagac cacgcgaaga acgtaattcg gaatacggag acagaagacc gagagaattc     1320
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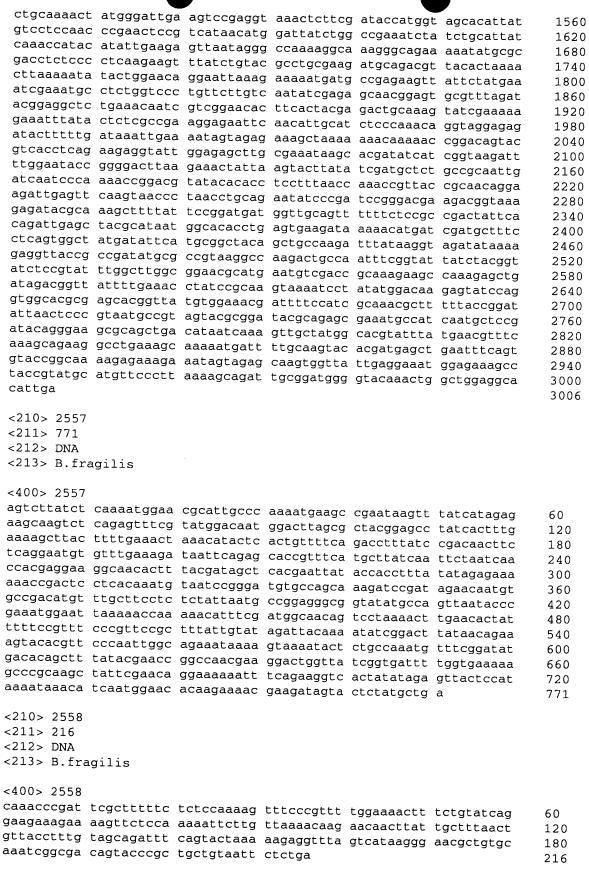
aaaggcaacc gtgagcccaa aatcaaaaag ccccaggagg actaa   1365

<210> 2548
<211> 1701
<212> DNA
<213> B.fragilis

<400> 2548
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tctttgatgg agatatctcc tgaacgtacg ttggcttatc ttcgtaaact tgatgtttct   180
acttattcag cgggtgacag ggcatacttt agcttactgt tcacgcaggc tactgataaa   240
aatatgcttt ctcttcttcc atgtgactct ttgattgata ctgcattaga ttattatatt   300
aaaaaagatg gtgtcaattt ggctaaagct tggctttata aaggccggat tcaaaaaaaa   360
atgaatatga ctgaacaggc tttgaagagt tgctttactg ctctgcaggg agttgaagga   420
aataccgggg aggaattaaa actgaaagga atgctatatg aagatatggg atcgatttat   480
ttacatcaat ctctttatca gaaagcgttt gatgcgtttt atcgctctta tcaatgtgat   540
tctttactga atgaccatag attggtaatg tatcctttgt caaatatggg gtgggtgcgt   600
gtgattcaag gaaaaacggt agaagctttt tattatttga accaatctat acaattagct   660
ttgagattga atgattcagc ttttgttagt gatatatatg aacgaatgag tttgaattgt   720
gagaatgtcg attctgcttt cctatatgcc catttgtcac atcaatattt gacaaaggat   780
ggcgactcta ttagtttatg gttaacattt ggtgatttgt atttagacaa gcaagaacta   840
gactctgctg aatattattt aaagcgtata cttgatactg ctgattttaa aaggaagatt   900
ctagcgtcgt attctttggc tgaagtcgag aagattaggg gtaattatca acgggccttt   960
gaatatcagt cttattatgg tgataatata gattctattt ttttgttaaa taaagcctcc   1020
gatattgagc gcttagcgta taaatatgat tcagaagcaa aagtagtaaa ggaaaaggaa   1080
aagcagaggt ttttcattca gcaactttgt tatggaggag ttttgtttct gctggttatt   1140
gctataattt ttcaacgtat ttatcggcgt cgtcaaatag ctcgattact gtacgaacag   1200
cgtataactt atttaaatga gaaaacagcc ttatctcaat tacaaataga acgtttggaa   1260
gttcaaattt ctgctttaaa gcagtctggc atggagcgtg aacaggaaat agatttgaaa   1320
caagcagaat tatgctgtgt tattgatgaa aaagcacgat tgcgtaactg tttgtttatg   1380
gaaacttcta tttttaagca tattcgagaa ctaagcactc aacccaggtt gggacaaaat   1440
ggaacaaagg ggagtccgaa agttcttctt atgaaagaac aggaacaatt gaaaaacata   1500
ttgtttggta tttatgatga ttatattcga taccttaagg gtacttatcc taaaataaca   1560
gataatgact gtatttattg ttgcttgaaa ctttgtgaat ttgatgatca aaccatagct   1620
tattgttttg gtaatgtaag caagcaaatt gtagcgcagc ggcgtttacg attaaagaaa   1680
aaaatggctg aagccaattg a   1701

<210> 2549
<211> 939
<212> DNA
<213> B.fragilis

<400> 2549
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ttgaaaatgt ggctggatgc ggaccggcaa gccggaatga cttatatggc gaatcatttc   180
gacaaacgct gcgacccggc tttgctggtc gaaggcactc gttgcgtggt ttccgtagca   240
ctaaactatt accccgccac ccgtatacct gacgaggaat atcaattcgc atggtacgct   300
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caagaatcag acgtaccgga gctgaacgga cgcatgttct gtgacaccgc gcccgtaccg   420
gaacgttatt gggcctggcg tgccggcctc gggtggatcg aaagaacac ccagctgatc   480
attccccatg ccggttccac tttcttctta ggcgagcttt ttctgaatgc ggaagccgat   540
acatacgacc ggcctcaacc caatcgctgc ggccgatgta accgttgcct gcaagcatgc   600
cctacaaaag ctttagagac gccatacagc ctgaatgcac accgttgcct ttcatacctc   660
accatcgaga ataaaagcga aattccggac tctatcgccc cctttatggg aaaccgtgtg   720
tatgggtgtg acgaatgtca gaaagcttgt ccctggaacc ggtttgccac tccctgccgg   780
acaccggaac tgcaaccctc accggagttc atgaacatga gaaagaaga ctggaagcaa   840
ctgagcgaag agaaatacag agccctcttc aaaggcagtg ccgtgaagag ggccaaatat   900

agcgggctga taaggaatat aagacaaatg gaagactaa   939

<210> 2550
<211> 723
<212> DNA
<213> B.fragilis

<400> 2550
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cagccttcaa tcactttcga ccgaagcccg gcaaaaactg aagaagatcg accccgaaac   60
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gctttcggga cgatagactg ctgcgtttca cgtgaaacaa aacatttaaa gaaacaacat  180
aaaagaatga ttatgagcaa agaaaagctt atcaaaagca tccgtgagat acccgatttt  240
ccaatccccg gaatcctgtt ctacgatgta accacactat tcaaagattc ggaacgtctt  300
caggaacttt cggatattat gtacgaaatg tacaaggata aaggaatcac caaggtagta  360
ggcatcgaat cgagaggctt cattatggga ccgattcttg ccacccgctt aggcacagga  420
tttatcccca tccgtaaacc cggcaaactc cctgccgaaa caatggaaga aagcttccat  480
aaagaatatg gcaaagactc cgtgcagata cacaaagatg cattgaacga gaacgacgtc  540
gtattactgc acgatgactt actggctacc gtaggtacta tgaaagccgc ctgcaaccta  600
gtgaaaaagc tccatccgaa aaaggtatac gtaaacttca tcattgagtt aaaggaactg  660
aacggaaaac aagtatttga aaatgaccaa gacgtagata tacaatcagt attgtcgtta  720
taa                                                                 723
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<210> 2551
<211> 2040
<212> DNA
<213> B.fragilis

<400> 2551
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atcaaaacaa tgaggcatag agcaaacctg gcaattgtat ttttttgttt gttattaccg   60
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gactctgtgg aacgttgtgc tcaggattca ttgtttagta atacccgata ttcacgttct  180
ttgttgcgac acgccatggc ggatgctccg gatagcctgt cttattatta ccttttgtca  240
ttttattcca aatcttattt tgttacggca gactttgatt cagtcttgta ttacaatcgg  300
cttgtgaagc gcttttgtaa tgaagtggag ctttccgcgg aagtgcatga tctgctttcg  360
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atctcctata aaaagccta cgaagaaagg cttcaaggac aacaaacgga ctatctaccg  480
gacttgtgca taaatttggc tgatgccaat gtgcataagg gagattatgc gtatgccgct  540
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tttccggttt actatggtct cggacagact tatatggaat tacgtgattt tgagctttcc  660
aatcattatt atgaacttgc aggaaacttt tttcctcaga tgagcgtgtc tgagaaatgg  720
acttacctga ataaccgggg aaaccatttt tattataaaa aagactatcc gcaggctgtt  780
cattatattg ggcgtgcatt agaggtcgtg aagtcttatc ctcaaatggt ttttgaacag  840
aatttgtgta aggcaaatct tggagaactt tatgtgatta ccaataaact ggattcagcg  900
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cgtaatcact atctacagca ttattacgag caggtgggaa actataaaaa ggcttatgaa 1140
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gatggggaaa cgttgtgtgg tgatctgaca gaattggtga aactacttcg taagagcttg 1560
gaattgacag agaaactcag tatttctctt tatgatgaac tggaatttgt gaagacttac 1620
atccatcttg agcaaggacg tctcggaagt gatttttcaa tggatgtgaa gatcgaggaa 1680
gacttggata ttcagcaggt tgtcattcct tcaatggtag tacagatacc ggtggagaat 1740
gcattgaaac atggattggc cggaattgac ggtttgaagt tacttggtat atctgtttgc 1800
cgaaagggaa gtggaatcct tattgatatt tgcgataatg gacgtggata ttctccacaa 1860
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actttatcat ctacacgtgg aacaggaaca gggttgaaag tgctttatca gactattcag      1920
ctattgaatg ataagaatcg cgagaaaata cgttttgaaa tcaagaatct ggtgaataat      1980
ggacagaccg gaacacaagt tctaatctat ataccattgg attattctta caatttataa      2040
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<210> 2552
<211> 624
<212> DNA
<213> B.fragilis

<400> 2552
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ccgaaggaga tgtttataga gcaaccgcct tggttttttcc gcgcaatcta tcccgacgcc       60
atcttccgga tggaccctga cgaaaaggct gtttacctga cctttgacga cggtcccatc      120
ccggaagtga cgccttgggt actggaactg ctggacaaac acaacatcaa ggcaaccttt      180
ttcatggtag gcgacaacat ccgtaagcac ccggatgtgt tccgtatggt agtagagcgc      240
ggacaccgca tcggcaacca tacgttcaac catatccgcg gattcgagta tctgtcgtca      300
aactatctgg ccaacacgga caaggccaac gagatgatga aaacggatct gttccgtcca      360
ccccacggac atatgcgctg gatgcaatat atgacgttga agcgtcacta taaaatcatc      420
atgtgggatc ttgtcacacg agactacagt aagaagctgc gtccgcccca agtgctggcc      480
aatgtgatga gatatgcccg caacgggtct atcataacct tccatgattc gctgaagtcc      540
tggaacaacg gaaacctgca atatgcgctt ccccgtgcca tcgacttcct gaaagaagaa      600
ggatacgagt ttaggttact ataa                                             624
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<210> 2553
<211> 1116
<212> DNA
<213> B.fragilis

<400> 2553
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tctttgctac ctatttataa aaaaggaatg gaagaagatt ttaatatacg tgatcatcag      120
ctgaccagca gagagcggga ttttgaaaat gccctccggc cattgagttt cgaagacttc      180
aatggacagg ataaagtggt agataatctc cgtatttttg tcaaggcagc tcgtttgaga      240
gcagaagcac tggaccatgt attgcttcac ggcccccccg gattgggtaa aaccacttta      300
tcgaacatca tagccaacga actgggagta ggatttaagg taacttccgg accggtactc      360
gacaaaccgg gtgatttggc cggcgtctta accagtctcg aacctaacga cgtgctgttt      420
atcgatgaga tccaccgcct ttcaccggta gtggaggaat atctgtattc ggccatggag      480
gattaccgga tcgatattat gatcgacaag ggcccctcgg cgcgtagtat ccagatcgat      540
ctgaacccgt ttacattggt gggagccact acccggagcg gattactgac ggcacctctg      600
cgtgcccggt tcggtattaa cttgcatctg gaatattacg atgacgatat tctgagcaac      660
attatcagcc gttcggccgg catactcgat gtgccctgtt cgtctcaggc tgcgggtgag      720
attgcttcgc gcagccgcgg gacacctcgt atagccaatg cgctgctgcg cagggtgcgt      780
gattttgcac aagtgaaagg gtccggttct atcgatacgg agatagccaa ctatgcgctt      840
gaggcgctaa atatcgataa atacggactg gacgagatag acaacaagat tctctgtact      900
attattgata aatttaaggg tggtcccgtg gggcttacga ctattgccac tgcactgggc      960
gaagatgccg gaacgattga ggaggtctac gaaccgttcc tgatcaaaga gggattcctg     1020
aagcgtactc cccgcggacg tgaggtgacg gaactcgcct ataagcattt ggggcgcagt     1080
ctctacaata gtcagaaaac actgtttaat gattag                                1116
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<210> 2554
<211> 1065
<212> DNA
<213> B.fragilis

<400> 2554
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attactacgg agctggaaga tttcaaaaat ctatttgata gttctctgtc cagttcaaat      180
cttttgctta ataatgtgat tgctcacatc cggcagagga atggtaagat gatgcgccct      240
atccttgtgt tgcttgtagc aaagctttac ggagaaataa agcctgagac attacatgcg      300
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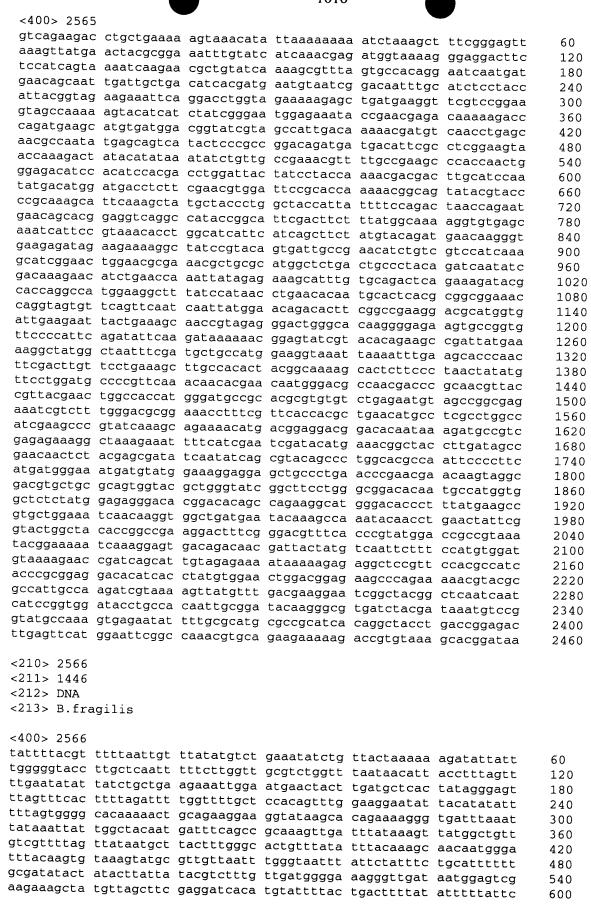
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gcagtatccc ttgaacttct tcatacggca agtctggtgc acgacgatgt ggtagacgaa      360
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tgggctcagg aaatggccct tagggtaaaa gccggtacgg ctacagtaga cgaaatcacc      900
cgtttaattg agtttatcaa gcaaaacggg ggaatagaat atgctgtgaa agtgatgtat      960
gaatacaaag agcgtgctct tgacctattg cgcactttgc cggattcggc agtaaagacc     1020
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<210> 2555
<211> 411
<212> DNA
<213> B.fragilis

<400> 2555
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aagagtaggg aagtgactct gaatgcggaa ggaggagata ttactgtaga aggaagagag      180
aagtttatac ttgtacagac agaagagatt ctaaatcagg atactatttt cagtataggc      240
gagattaatg gcgttgaata tcagggagga tggtatcaat tagaggttaa tggaaaagaa      300
atgactctca actgtgacag aaatttaacg ggaaataagc ggaaagttgt tttgcatttc      360
caagggaccg gtaattcatt tgatgttttt tctctgacac aattagaata a              411
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<210> 2556
<211> 3006
<212> DNA
<213> B.fragilis

<400> 2556
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ctatttgagc acaaaagtaa taataaaacg gttaatacgg tatttttttg tacttttacc      180
atgaaaaaac tgaaaaatat gaatcaaaac agcaaactat tcctcttgga tgcttatgct      240
cttatctatc gggcgtacta tgcgttcatt aaaaatcccc gcattaattc caagggtttt      300
aatacttcag ccatactggg attcgtcaac accctggaag aggtgctgaa gaaagagaac      360
cccacccaca ttggagttgc attcgatcca ccgggaccca cattccgcca cgaagctttt      420
gaacagtaca aagctcaacg agaagaaact ccggaagcaa tccgtctttc ggtacctatt      480
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atgactcctg acaaggacta tggtcagttg gtaacggatc atgtatttat gtatcgcccc      660
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gagacgaatc gggaaatgat tattttctcc aaattcctgg caacaatcaa agtggatgta      960
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agcttaaatt cattaagcta cgactaccaa ttaattgata cagaggagaa aagaaacgaa     1260
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tacgttccgg tacctgccga acgggaagag gcaatcaaaa tcgttcggga gttcgaacct     1440
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gtcctccaac ccgaactccg tcataacatg gattatctgg ccgaaatcta tctgcattat   1620
caaaccatac atattgaaga gttaataggg ccaaaaggca aagggcagaa aaatatgcgc   1680
gacctctccc ctcaagaagt ttatctgtac gcctgcgaag atgcagacgt tacactaaaa   1740
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cagattgagc tacgcataat ggcacacctg agtgaagata aaaacatgat cgatgctttc   2400
ctcagtggct atgatattca tgcggctaca gctgccaaga tttataaggt agatataaaa   2460
gaggttaccg ccgatatgcg ccgtaaggcc aagactgcca atttcggtat tatctacggt   2520
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atacagggaa gcgcagctga cataatcaaa gttgctatgg cacgtattta tgaacgtttc   2820
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gtaccggcaa aagagaaaga aatagtagag caagtggtta ttgaggaaat ggagaaagcc   2940
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<210> 2557
<211> 771
<212> DNA
<213> B.fragilis

<400> 2557

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aaaagcttac ttttgaaact aaacatactc actgttttca gacctttatc cgacaacttc   180
tcaggaatgt gtttgaaaga taattcagag caccgtttca tgcttatcaa ttctaatcaa   240
ccacgaggaa ggcaacactt tacgatagct cacgaattat accacctta tatagagaaa    300
aaaccgactc ctcacaaatg taatccggga tgtgccagca aagatccgat agaacaatgt   360
gccgacatgt ttgcttcctc tctattaatg ccggagggcg gtatatgcca gttaataccc   420
gaaatggaat taaaaaccaa aaacatttcg atggcaacag tcctaaaact tgaacactat   480
ttttccgttt cccgttccgc tttattgtat agattacaaa atatcggact tataacagaa   540
agtacacgtt cccaattggc agaaataaaa gtaaaatact ctgccaaatg tttcggatat   600
gacacagctt tatacgaacc ggccaacgaa ggactggtta tcggtgattt tggtgaaaaa   660
gcccgcaagc tattcgaaca ggaaaaaatt tcagaggtc actatataga gttactccat   720
aaaataaaca tcaatggaac acaagaaaac gaagatagta ctctatgctg a           771
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<210> 2558
<211> 216
<212> DNA
<213> B.fragilis

<400> 2558

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caaacccgat tcgcttttttc tctccaaaag tttcccgttt tggaaaactt tctgtatcag    60
gaagaaagaa aagttctcca aaaattcttg ttaaaacaag aacaacttat tgctttaact   120
gttacctttg tagcagattt cagtactaaa aagaggttta gtcataaggg aacgctgtgc   180
aaatcggcga cagtacccgc tgctgtaatt ctctga                             216
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<210> 2559

<211> 801
<212> DNA
<213> B.fragilis

<400> 2559

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catacgaact ctgtgacagt taatttatta ttcacacaaa caaacttact tatgaaaaca    60
aacttctgtc gttttttaat tgggttggtt gcctttgttg tcggcatccc ggttatggcc   120
cagacgggac cggataaggt gaagcctttc agccatttat ccgttcgct gaatgccgga    180
acactggggg gaggactcca ggttgctgct ccgttgaatg actatctggg acttcgtgcc   240
ggattctctt tactgaagtt caagtgtaat tacgattatg acggaattcg tgatgatcag   300
ttgattcagg atgccggtac tcgtaccggt tacaatccgg ataaatacta taccgttcct   360
ctgaaagcaa aagcaaatat gacaaacggc atgcttttgc tcgactattt tccattcaag   420
agatccgtct ttcatgtgac cgccggactg ctgttcggta cttcatccat cctgaaagta   480
tcgggacaga cagacgaacg gatagaggtg ggagatatca ttatcgagcc gggagcggac   540
ggacgtgtgg aagcagcttt gaagaccaat gccgtgaaac cttatgtagg tattggattc   600
ggacgttcgg tagctcattc acgcgtaggg ttcaagttcg aattgggagc tatgttccat   660
ggtaatccga agattgaagc cactaccgga aagattgtgg aagaggcgat cgatcaggac   720
ctgagccgtt tcaataagtt cctgaaaaac tttaaagctt atcctgtgct taacttccag   780
ttatcatacc ggatatttta a                                            801
```

<210> 2560
<211> 1059
<212> DNA
<213> B.fragilis

<400> 2560

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ccaatcttat cagaaaagaa gtacatttgt ttccgtaaat caacactcca attcatgaaa    60
ctgcaaaaaa tatatcgtca actgtggatg gaagtccatc cgcgtctgca atcggcagat   120
accgatcaat ggtatgtcga ttttgccaac aggctgctgc ccctatttga gaagtcggag   180
cttaccggac agatgattca taaaaaccgg gccgttcttt atttcacctg gtatctggaa   240
gattgtgtga ataattccgg tggatggaat aagttcatcc ggttgcacaa gcggttgtac   300
gggcgttttc tgccctttta taccctgaca ggggcgtatg ccgatgatga aataaatttt   360
gaggatgtgt cgttcctgtt atggtcgctt ctttctcctg tcacagacga ttctccggtt   420
ccttggaatc cgacggataa atctctgctt cgacttgcga ctgatattta tgcgctactt   480
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attcgtgccc tgttgcctcc tccgggacct gttttggata ttttcccgga atggagctt    600
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gattatgcgg gcttgcgccg tttctgtgtc gatgcgttgg agtgggccga cgaagacgat   720
tcgttaatgc ccgaattggc cgatgaagaa aattttgtat tttttgccaa tccgaaaggc   780
atcttgcttg ctcccaatat cggtgcttgc ttccgggatg aacgaaactc gacatataat   840
cccgggattg ccgaacaaga aggggccgag ttgtttatg ttcccggact ttgtcccatc   900
gacttgttgc actatgccat gcagcatgat ttattgtccg aggtcacttt tccttttgag   960
gatggcagga gggtgttgca cgagaactgg gattttatag cccgcagata tttaggcaaa  1020
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```

<210> 2561
<211> 279
<212> DNA
<213> B.fragilis

<400> 2561

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ctgaaagaag atactttcag ggatctttcg gttatggcag caaagcaggg tacgaacctg   120
aaacggttaa tagagtccat gctcgacaag gcagcggatg aatacgatgg gaacgaatcc   180
taccgctacc tgtctgaaaa ttaccctgat ggaaaggtaa tgctgggaaa ggaagaacgt   240
gaagagttta tagactggtt gggagtggtt gagaaatga                         279
```

<210> 2562
<211> 930

<212> DNA
<213> B.fragilis

<400> 2562

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agaaatgtgt taaacaaaac caataaaaag atgaaaaaag taagagcagc catcgtaggt    60
tatggcaata ttggtcgtta tgtgctggaa gccctccaag cggctcccga tttttgagata   120
gcaggtgtgg ttcgtcgtgc aggtgccgag aacaaaccgg ctgaactgaa tgattacgca   180
gtagttaaag atataaagga acttcaggga gtagacgtgg ctattctttg tactccgacc   240
cgcagcgttg agaaatacgc aaaagagatt ctcgcaatgg gcatcaacac agtagacagc   300
tttgatattc atacaggcat cgttgacttg cgtcgtgaac tgggtgcttg cgccaaagaa   360
cacggagctg tatcgatcat ctcggccgga tgggatccgg gaagcgactc gatcgtacgc   420
accatgctcg aagcaatcgc ccccaaagga atcacttaca ccaacttcgg tccgggtatg   480
agtatgggcc atacggtagc cgtcaaagct atcgatggag tgaaagcggc tttatcgatg   540
actatcccta ccggaacagg cattcatcgc cgtatggtat acatcgaact gaaagacgga   600
tataaattcg aggaagtggc agcagccatt aaatcggacg cttatttcgt taacgacgag   660
acacacgtaa aacaagtgcc gagcgtagac gcactgctgg acatgggaca cggtgtaaac   720
ctgacccgca aaggtgtatc cggaaaaacc cagaaccaac tgttcgaatt caatatgcgc   780
atcaacaacc ccgcactgac cgcacaggta ttggtatgcg tagcacgtgc ttcgatgaag   840
cagcagccgg gatgttacac catggtggaa gttccggtta tcgatctgct tccgggcgac   900
cgtgaagaat ggatcggcca cctggtataa                                     930
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<210> 2563
<211> 618
<212> DNA
<213> B.fragilis

<400> 2563

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aagttgaatc ttgcattctc gatctcagcc accagtcgtc cccccggggg aaacgaaaag   180
catggagtag aatatttttt cctctctccc gatgaattcc gtcaacgcat tgcaaacaat   240
gaattcctgg aatacgagga agtatatacc gaccggttct acggcactct gaaagcacag   300
gtagaaaaac agcttgctac cggacaaaat gttgtgttcg atgtagatgt cgtaggtggc   360
tgtaacatca agaaatatta tggtgaacgg cactttcgc tttttatcca gcctccctgc   420
attgacgaac tgcgccgccg tctgatcgga cgcggaacag atactcccga agtgatcgag   480
agtcggatag ccaaagccga atatgaatta agctttgctc cgaaatttga taaggttatc   540
attaatgacg acctggaaac agccaaggca cacgcattga aagtgatcaa agagtttctg   600
ggcatcgata cagaataa                                                  618
```

<210> 2564
<211> 459
<212> DNA
<213> B.fragilis

<400> 2564

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ctgtctacat taacggcgga ttcatcggtc accggcatca tcctgcgatt gatgctttgt   180
ggtgcaggtt tcggtctttt ccagacaccg aacaacagta caatcatctc ttccgcccct   240
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ttcggtacga cactggttgc tttgctcttc agttttgtag tacacgagaa gagtacggcg   360
gtctgtctga tagccggcag cggatttgcg tttgtcgcag cagtggtaag cagcatgcgg   420
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```

<210> 2565
<211> 2460
<212> DNA
<213> B.fragilis

<400> 2565

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gaacagcaat tgattgctga catcacgatg aatgtaatcg gacaatttgc atctcctacc   240
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ccgcaaagca ttcaaagcta tgctaccctg gctaccatta ttttccagac taaccagaat   720
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caccaggcca tggaaggctt tatccataac ctgaacacaa tgcactcacg cggcggaaac  1080
caggtagtgt tcagttcaat caattatgga acagacactt cggccgaagg acgcatggtg  1140
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gtgctggaaa tcaacaaggt ggctgatgaa tacaaagcca aatacaacct gaactattcg  1980
gtactggcta caccggccga aggactttcg ggacgtttca cccgtatgga ccgccgtaaa  2040
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<210> 2566
<211> 1446
<212> DNA
<213> B.fragilis

<400> 2566

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ttgaatatat tatctgctga agaaattgga atgaactact tgatgctcac tataggagt    180
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tttagtgggg cacaaaaact gcagaaggaa ggtataagca cagaaaaggg tgatttaaat   300
tataaattat tggctacaat gatttcagcc gcaaagttga tttataaagt tatggctgtt   360
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tttacaagtg taaagtatgc gttgttaatt tgggtaattt attctatttc tgcatttttt   480
gcgatatact atacttatta tacgtctttg ttgatgggga aagggttgat aatggagtcg   540
aagaaagcta tgttagcttc gaggatcaca tgtattttac tgactttat atttttattc   600
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atggggtggg gacttttagg tatagcggtt gctaacttac ttgctccttt tgtgaatcgt   660
tattttttcat atcgttattt ttttgtgcca gaattacgaa ataagattga gaattactat   720
gtgaatagaa aagaaaaatg ggaaatcttt agtataattt ggtataatgc taaaaaactg   780
ggaatggttt ttattggtaa ttatgcgatt agtaaattga gtttattttt ggctggacta   840
tatttgtcat tacaagaaat agcatcatat ggtttgatga ttcagttggt gacagtttta   900
acagtttctt ctgttacatt atttacaata tctgagcctt atttaatttc tttaagaata   960
gaaggtaaac ggagtgaatt attgaaacgg ttttcattca caatgaatgt gtactattgt  1020
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ggatctaata ctaaattgcc atcaacttat attcttactc tttattgttt tgttatattt  1140
ttagaaaata ataattgtaa tttttcaaca tttatacttc ttgataataa aattcccttt  1200
atgtggcctt ccttatgtac tggagtattt attattatgg gtgatttctt aatattacag  1260
tatacttcat ttgctcttgg tggattgatt atggttcaat tgatatgtca atcagcttat  1320
gttaattgga gatggatcta tgtcgtttgt cgtgatttta agatatcatt ttcttcattt  1380
ttagcattag gattaaagga aactttttaat aaaatcagat tgtcactttt tatgttaaaa  1440
tactga                                                             1446
```

<210> 2567
<211> 285
<212> DNA
<213> B.fragilis

<400> 2567

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tgggggataa caggtacgac cagcatgatc atgctgatga aaaggagaaa agagactatg    60
taccgtttat tcctcattct taatttagat tattgcgagg caaagatagt ctatcattgg   120
ataaaaaaaca aacagtgtta cttaaaaaac aaaaagacag atgcgtcgta ctttttacca   180
cggagtatca cagagccttt ttttgttaat gatcaacgac tgaaaatcga ctccatgtta   240
ctctgtgtcc tctgtggtga gtttcgacat acctgtctta aatga                   285
```

<210> 2568
<211> 1005
<212> DNA
<213> B.fragilis

<400> 2568

```
tatgttaatg ctatgacaac tccgacagtt agctttataa ttccggtgta taatgttgat    60
aagtatttga gtcaatgtat tgaaagcata ctggtacaga gttatcggaa ctttgaaatt   120
attcttgtaa atgacggttc tatcgacaat agtccgtatt tgtgtgatat atatcaatct   180
aaggatgaga gagtaaaaac tgtgcataag aaaaatggtg ggctttctga tgcaaggaac   240
gttggtttga ctttggctaa aggtgaatat ataattttcc tagatagcga tgattttttgg   300
atatcacaaa acgatttaca gttattagtt catcgactgg attctcttat aaattgtgac   360
ttcatgtgct tcaattgttg ctattattat ccgtcaaaac atttattcaa aagatggact   420
ccttttgcag atgaattatt attgagtgtg gataaatcta aaagtattat atctttggtg   480
agctctggaa catttccaat gagtgcttgt ctaaaaatta ttcgaagaaa ttttttgcta   540
gagaataata ttactttttca aaaagggatt caatcagagg atatactttg gtttatggaa   600
ttgttggaga aagcacattc catagcattc ttaaatcaat acatatatgc ttatagacgt   660
gaagtggaaa attcgataac atcttcattc acacctaaaa aatataatga cttgtttttct   720
gttttagaaa atgggattca aagaatagag gcatataaat gggatataca gactaaaaat   780
gcattgttgt catttatggc ttatgaatat tgtacgctac tcgctttctt gtattatttt   840
ccatttgcgt tgagaaaaga gttggagggc aagttgtttc aatataattg gttacttaaa   900
tataagctaa atcctaaagt aaagaaagta tcttttttgta tgcgttttttt gggcaaacgt   960
ttaactcttc ttttgttata taggtatatg aagaatttag tataa                  1005
```

<210> 2569
<211> 291
<212> DNA
<213> B.fragilis

<400> 2569

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acagtgatcg ccatcgaagt gaatatttcc attatgcgag cttttgtagc tgtccgccaa    60
```

```
ttggtctcgg ctcttccggt gaatgatatc accaggctgc aagatgaaat aaaagagtta    120
aaagaatatg tagaagcggc atttgccgat tacaatgata ttaatgaaga tacgaggatg    180
caacttgaat taattaatca ggcaattgct gaattgcagg ccaaagacaa acaggcaggc    240
ggaaaaactc gtaatccgat cggttttata tcttataata aggaaaaatg a            291
```

<210> 2570
<211> 357
<212> DNA
<213> B.fragilis

<400> 2570

```
tacaaccttt attatctttg cgtcatgaag aaaataataa cgtacaagaa ttactttgca     60
gagtttatgg ataaactctc tgagcttgaa cggaagaaga tacaacgcgc tctatctctt    120
tttaaggcag aagacaagat accgagccat tacattaaat tcattcgtga tggagtatat    180
gaatttcgtg tggcctgtgg gaacaatgaa ttacgcatct tttttatcta cgacggtgag    240
aacgtagtgg tattgttcaa ttgtttttagg aagaagacgc agaaaacccc tgataacgaa    300
ataagaaag ctataaactt aaaaaaagaa tattatgaag ctaaaggaaa taagtaa         357
```

<210> 2571
<211> 720
<212> DNA
<213> B.fragilis

<400> 2571

```
tcaatgattc tctcttcttt ggtacatacc gattttcagc cttatttact tcctaatacg     60
gatgcatggg ctttacctag ggataaggcg ttggaattgt tggtttatct taaacagcaa    120
ggtgtcaggc agatctactg tgtacctccg gtaaaggtgg aaaatgaagg gaatgctttt    180
tcttttctga aagatgcctt tcaatattta cagcagcaat actccggtaa tatctctctg    240
cgtttgtcgg caagatatcg tttggatgaa ggatttccgg ctttgttgga gaagggagat    300
ttgttgacga taggaggggg gaaggagtta ctggtagatg tgtctccttt acaacagccg    360
gaaggactca gtgagatgat tcatgccatc tgccggtcgg gttatatccc tgtcctgatg    420
caaccggaac gttcgcttta ttggggaacg gaagactatc tgcacttgcg ggaatcggga    480
tgcaggctga tgctgaatct atattccttg ttcggttata atggtgacgg agcgttgaat    540
tacagccgta tgttgttgag aaaggagtgg tatacatatc tctgttcggg tagggaggat    600
acgaaagtga tgcgctatgg tgaatcgttt tcgatagagg atgatgatga tttggcgatg    660
aaattgcagg agatagaaag aaacagcagg ctgttgtggt ctgctacgga aaacgggtaa    720
```

<210> 2572
<211> 504
<212> DNA
<213> B.fragilis

<400> 2572

```
aataaacaat atacgcgtat atatagaaat atccatataa gaaccactaa ttttgcattc     60
gtaataaaaa aacttattag acgaaatgag caaaaaaaac cgaatgaagg agtggtatta    120
aacatgggaa atacccctta cgtagtaatc gtcaatgaaa aaagtgacga aggacagaaa    180
gtgttggaag cactggaaga aaacatagaa aagatggata taggctcgca tagggagctt    240
gtcatcttct ttttcgtatg gctgaaccat cagcagaaag atcccaaaaa gagaaaaaac    300
atacgggaac tggcaaagat catgcaccgg tcactgttct tcggacaaaa acacaacagc    360
aacgaggaga tgaagccgga ttccattgaa actgagatat ttaagatact aaggatatta    420
aaaagcatga aaaagcgga agataaagac ttgattataa atctattaga cgatatcagc    480
ctgtttctgg atgaaaacgt ctaa                                          504
```

<210> 2573
<211> 558
<212> DNA
<213> B.fragilis

<400> 2573

```
gattggctac atttgcacca atttatgaac tttacggcaa tggatattac gctcagaacg    60
ctcacggaaa acgacttgcc ttttgtaaaa gacatctacg actattatac cctccacacg   120
acagtggtgt actttgtaca ctgcgccagc atcgacgaac taaaaaacta catccccgta   180
ggcgatcctg tctaccggtc gttcatcatt gaaactcccg aaggagcacc ctgcggattc   240
tgctatttcg cacgcttcaa gccccgagaa gccttccgca tctcggtaga gctgaccctc   300
tacctgaaac cggagtttac aggaagagga tatggaaaac aagctatact ccgactggaa   360
gagatcatcc gccaagaagg cttcagcaac ataatggcac tgatttcggg agagaacgaa   420
gccagcatcc gcctgttcga aaaatgcggt ttcgaatgtt gcgcaaacat ccggcaggta   480
gcggagaagt tcggcaaaaa actggatttg aggatgtatc agaaaattat ttcagacaat   540
tcacatctca ctccctga                                                 558
```

<210> 2574
<211> 183
<212> DNA
<213> B.fragilis

<400> 2574

```
cacagtgtta aaacttgttc tttggatgtg aataaaaagt tctttaaatg caaaagactt    60
gttatttgcg cacaagaacc tgacaacctg caaaaggcgt taacaatgtt aattgaagaa   120
aggtataagg atgaagatac cggttcaaac ggcgtaaatt cacttcctaa acttgagtta   180
taa                                                                 183
```

<210> 2575
<211> 1113
<212> DNA
<213> B.fragilis

<400> 2575

```
ctcaaaacta aatcattaat cgatatgaaa ccttatttgt tattgacccc cggaccactt    60
actacctcag agactgtaaa ggaaaccatg atgaccgact ggtgtacatg ggatgaagac   120
tataatttgc acattgtcga agcattgcgt aaagagctgg tcggcattgc tacccgcaat   180
acggaagagt atacatctgt tctttttgcaa ggaagcggaa cctattgtgt agaagccgtg   240
attggtgctg ccatcggtaa gaatgataaa cttctgattt gcagtaacgg tgcttatggt   300
gaccggatgg ggaatattgc cgaatattat catatcgact acgagctcct tgcttttgat   360
gaaacggaac aggtatcggt agactatgtg gacgactatc tgagcaataa ttcagatgtt   420
actcatgtgg ccttcgttca ctgcgaaacg actaccggta tcctgaatcc gttgaaggag   480
ctggcacatg tagtgaagat gcatggcaag aaactgattg tagatgctat gagtagcttt   540
ggaggtatcc cgatggatgt tagtgagttg gaatcgact tcctgatcag cagtgccaat   600
aaatgtatcc agggagttcc gggattcgga tttatcatag cccgccgttc ggaactggtg   660
cgttgtaagg gagtagcccg ttctctttct ctggatattt acgaccagtg ggaaacgatg   720
gaaaaaggc atggtaaatg gcgtttttact tcaccgaccc atgtggtgcg tgctttcaag   780
caggccctta ccgaactgat tgaagaaggt ggagtggagg cccgtcaccg gagatattgt   840
gagaatcacc gggtactggt agagggtatg cgttcactcg gtttttgtaac tttgctcgat   900
gacgcaatcc agtcacctat tatcacttca ttcttgtatc cgaaaaccgg attcgacttt   960
aaggccttct ataccgccct taaatccaag gggtttgtaa tctatcccgg aaaaatttca  1020
aaagcggata ctttccgtat cggtaatatc ggagatgtac atccggagga ctttgcccgt  1080
ctggtggagg tggttagaga gactgagtac taa                                1113
```

<210> 2576
<211> 210
<212> DNA
<213> B.fragilis

<400> 2576

```
gttttcgcta aaagcagtaa tcattcacct ccgaagcccg gttcttcgac ccgatatcat    60
caggagataa atgattatct cctgatgata tcggaagtta ctcctattct tttccaaaga   120
agtgccaaat tgttaatcta tactaaatct gctcttgaca aaagaaggc aagaacagag   180
atgttgtatc tttgtttctt tgtaaactaa                                    210
```

```
<210> 2577
<211> 1167
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (348),(460)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2577
caaattaata aatcaatcat aaagaatatg aaaacttatc ttgtaaccgg tgctgccgga      60
tttatcggtg ccaattatct gaagtatatt ctggctaaac acagtgatat caaggtggta     120
gtgctcgatg cactgactta tgccggaaat cttggaacga ttgccaacga cattgataac     180
gaacggtgct tttttgtgaa aggtgacatt tgcgatcgtg aactggccga ccgccttttt     240
ggtgagtaca agtttgacta tgtagtgaat tttgctgctg aaagccatgt agaccgtagc     300
attgagaatc cgcaactttt cttgatgacc aatattctgg gaacacanaa cctgttggat     360
gccgcacgtc gcgcatgggt aaccggtaaa gatgaatacg gatatcctac ctggcgtaaa     420
ggggtacgtt atcatcaggt atctaccgat gaggtttacn gttcgcttgg tgccgaaagc     480
tattttcatg aaacgactcc actctgtccg catagcccgt acagtgcatc gaaaaaccat     540
gccgatatgg tggtaatggc ttatcacgat acctataaga tgccggtgac tatcactcgc     600
tgttcaaaca actacggtcc gtatcatttt ccggagaaac tgattccgct gattatcaag     660
aatattcttg aaggtaagaa acttcctgtg tacggagacg gtagcaatgt gcgcgactgg     720
ctgtacgtgg aagatcattg caaggctatc gacctggtag ttcgtgaagg tgtggaagga     780
gaagtataca atgtgggcgg acataacgaa aagactaatc ttgagattgt aaaattaaca     840
atcgcaacga ttcatcgcct gatggcagaa catcccgaat atcgtgaggt gttgaagaaa     900
aaagagaaaa atgccgatgg tgaaatttca atcgactgga taaacgaaga tttaattacg     960
tttgtcaagg atcgtctggg gcatgaccag cgctacgcca tcgatccgac aaagatcact    1020
aatgccttgg gttggtatcc cgaaacgaaa tttgaagtcg gcattgtgaa aacaatcgaa    1080
tggtatctga ataatcagga atgggtggaa gaagtaacca gtggtgatta tcagaaatat    1140
tacgaacgga tgtatagcaa acgttga                                         1167

<210> 2578
<211> 1371
<212> DNA
<213> B.fragilis

<400> 2578
attgtaaata atctgatgga aacatttta atccgtgccc tgcaattgat tatgagctta      60
tctttgctcg tcatcattca cgaaggaggg cactttctct ttgcccgcct gttcaaagta     120
cgggtagaaa agttttgttt attctttgat ccttggttca cactatttaa atttaagcca     180
aagaaaagtg agacagaata tgctgtcggt tggttacctt tgggggggata tgtcaaaata     240
gccggaatga ttgacgaatc gatggatacc gagcaaatga agcaaccgga acagccgtgg     300
gaatttcgtt ctaaacctgc gtggcagcgc ctgttgatta tggtgggagg tgtgttgttc     360
aacttccttt tggctctgtt catctattca atgattctgt ttaagtgggg agatcaatac     420
attcccgtac agaaggcccc attgggtatg gactttaatg aaacagccaa agcggtggga     480
tttcaggacg gagatatttt gttgtctgcc gatggagtcg attttgtacg ctacgatccc     540
gatatgctca gccagatagc tgatgcccgg gaggtaacgg tgttgcgtga gggtaagaag     600
gcatctgtat atatccctga agatatgatg cagcgtctgt gggtgacag tgttcgcttt      660
gccgaattcc gtttcccta tgtagtcgat agtgtgatgg tcaattcacc tgcagccatg      720
gccggtatcc agccgggcga cagtatcatt gctctcgacg gaaagccggt ttcttataca     780
gacttcctgg cagctatggc tgaaagaaga caaaatgcga aagcgttaca aaatgacagt     840
atcaatccgc accagatctc attgacttat gtgcgtgacg gaaagaccga tgtattgact     900
ttgactacgg attcagcttt caaaatagga gtagcggtca atccatatac ggatcaactt     960
cttcctgtaa tcaggaaaga gtatggtttc tttgaatcct tcccggccgg tgtagcatta    1020
ggagtgaaga ctttgaaagg ctatgtaggc aacatgaaat atcttttctc aaaagaggga    1080
gctaaacaat tgggcggttt cggaaccatc ggaagcatct tccctgcaac ctggaattgg    1140
catcagttct ggtatatgac ggcattcttg tctatcatcc ttgcttttat gaatattctg    1200
cctattcctg cgttggacgg cggacacgtc ttgttcctgt tctatgaaat cattgcccgt    1260
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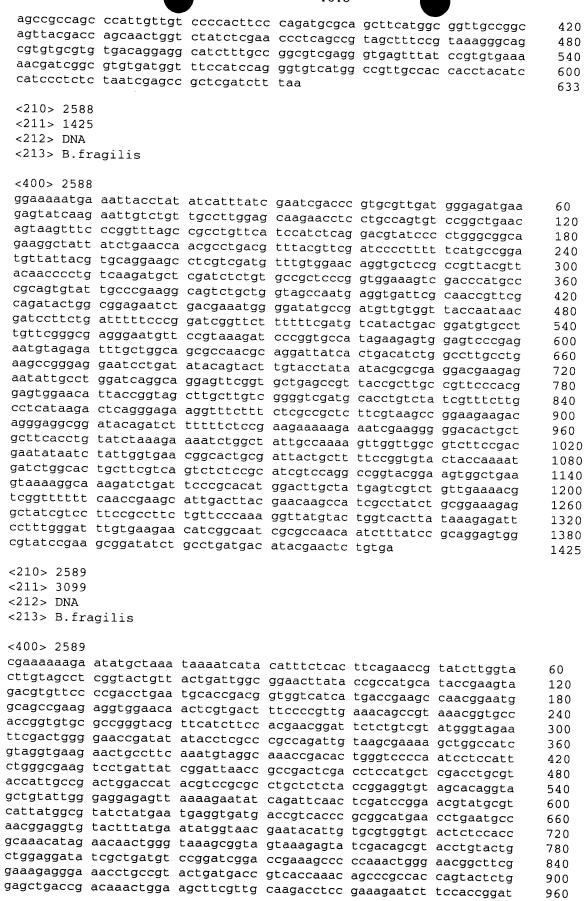
```
cgcaaaccga gtgataaatt tatggaatac gcacaaatgg cgggtatgat tttgttgttc    1320
ggccttttga tttgggctaa cttcaatgat atattgagat tcttcttctg a             1371
```

<210> 2579
<211> 666
<212> DNA
<213> B.fragilis

<400> 2579

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cagacaaata aacaaaaaca attaaaaaac aacagtaata tgaaacgtat cattatcgct     60
ttgatggtag ccgtaacttt ctgttcgctg gcaatggcac agaacccaac catcacccaa    120
gacaacaaga actcttccga ctccaccatc gtgaccgaat acactgacat agtggatagc    180
agtacggttg acaccgacta ccaaagcagc agtttcgact tcggcaatga atttccgttc    240
aacatagaca aaggggccat taacggaggc atactgacag gattggtagt tatcatactg    300
atattcggat tcccctcct tatcgtattc atcgccttct acttccggta taaaaaccgg    360
aaagcaaagt acagactgat ggaacaggca ctggcaaccg acaacctct gccggaaggt    420
atcttcaaag acactctgcc gcaggactac cggacgaaag gtatcaagaa catctgtacc    480
ggaatcggac tgttcatctt cctctgggcc atcacagacg aattcagcat aggatgcatc    540
ggattgctgg tgatgttcac cggaatcgga cagtggatca tctcacgcaa tcaacagcat    600
gaacggccgg aagacccttt cacacgccct acacacaaag acgaaacttt gaatgaacaa    660
aaataa                                                               666
```

<210> 2580
<211> 738
<212> DNA
<213> B.fragilis

<400> 2580

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tctgaaaata atcatgtaaa tttgcgtcaa tttaataatc tgattcttat gtcgtgtatc     60
ctacatattg agacttctac cgccgtttgt tcggtagcag taagtgaaga cgggcagaat    120
atttttgtga aagaagacct taaggggcct tcacatgccg tttcgttggg agtatttgtg    180
gatgaagcgt tgtctttcat cgatagtcat gccattcctt tggatgcggt agccgtcagt    240
tgtggtcccg gatcgtatac cgggcttcgc attggcgttt cgatggcaaa gggtatttgt    300
tacggacgta atgtcccgtt gatcggtatc ccgacattgg aagtgttgag tgtacctgtg    360
ctgctttatc atgaattgcc ggaagatgca ttgctatgtc cgatgattga tgcacggcgg    420
atggaggtat atgcggctat ctatgaccgt gcgttgaatg tgaagcgtga gatttccgcc    480
gatatcgtgg acgagaattc ttatcttgaa tatctggaac agcatcctgt ctatttcttt    540
ggaaatggag ccgcaaagtg ccgtgaaaag attacgcacc ccaatgcgca ttttatagat    600
gatcttcatc cgttggcaaa gatgatgttc ccgcttgcag aaaagaccgt tgcaatcaac    660
gactataaag atgtggccta ttttgagcct ttctatctga aagagtttgt ggcttcgcaa    720
cccaagaagt tactttaa                                                  738
```

<210> 2581
<211> 918
<212> DNA
<213> B.fragilis

<400> 2581

```
ctactgcgta atcattcagt tcagccggtt tgttctcggc acctgcacga cgaaccacac     60
ctgctatctc aaaatcggga gccgcttgga gggcttccag cacataacga ccaatattgc    120
cataacctac gatggctgct cttacttttt tcatcttttt attggttttg tttaacacat    180
ttctttattt cggttgcaaa attagtcatt ttctttgttt tcaggtctct taagggtgtt    240
aaagttagtt tttgttattc aaggttcgtg aagcacaata tttattatct ttgcgttctg    300
attataacca ttatgataga atacatcaaa ggcgaaattg ccgaactgag tccggcaacc    360
gcagttatcg attgtaacgg attaggatat gccgttaata tatcactcaa cacttattct    420
gccattcagg gtaagagcag ttgtaaactc tatatctacg aagccatccg cgaagatgct    480
tacgttttat atggctttgc cgacaagcag gaacgggaac ttttcctgct gctgatttcc    540
gtttcgggta ttggaggaaa cacggcccgt atgattcttt ctgctctttc accggccgaa    600
ctggtgaatg tgatcagtac cgaaaatgcc aatatgctga agacggtgaa aggtatcgga    660
```

```
ctgaagaccg cacagcgtgt cattgtcgat ttgaaagata aaattaaaac cggtgccatg    720
gctgcaactg ccgtgggagg tgctgccggt gctttgttgc cggcaatgaa tgcggaagta    780
caggaagagg ccatcgctgc attgaccatg ctcggatttg ccgctgcacc ttcacagaag    840
gcggtgcttg ccatattgaa agaagaaccc gatgctccgg tggagaaagt cattaagctg    900
gctttaaaaa gactttga                                                   918
```

<210> 2582
<211> 933
<212> DNA
<213> B.fragilis

<400> 2582

```
tcagtctgca aaggtacaac ttttcgctct tcactttcca ctcttcactc taaatttgta     60
tttttgccct ctataacaaa gaacaacaaa atgaagaaac tgattgtcct gacatgtaca    120
ttgtcactac tgacagcttg tggtgacagc atcgaaaaga aagcgggtga aaagcttgcc    180
gctgcccgtg cagcctttga gcataacgac tacaacgaag ccaagttgca gatcgacagt    240
attaaaattc tctatcctaa agctttcgac acccgtaaag agggcatcaa gttgatgcaa    300
caagtcgaac tgaaagagca acaggaaagc ctggtttatc tcgacagcat gcttcaggtc    360
aaacagaaag aattcgaagc gatcaagaac aaatatactt tcgagaaaaa cgaagaatac    420
caaaaaatcg gtaactactt ctggcctacc cagaccgtag agaagaacct gcatcgctct    480
ttcctccgtt ttcaggtgaa cgaacaggga gtaatgacac tgacgtctat ctactgcgga    540
ccaagcaaca tccaccacgt agccgtcaaa gtgatagcac cggacggaag ttttgccgaa    600
accccagcct ccaacgacag ctacgagact accgatctgg gagaaaaaat cgaaaaagcc    660
gactacaaaa tgggagaaga cggcaacgtc ctcagtttcc tctacatgaa ccgcgataag    720
aaaaatatcc gtgtcgagta tctcggcgaa cggaaattct ccactaccat gactccttcc    780
gaccgtgaag cactcgtcgg tacttacgag ttggccaaat tactttcatc catacgtcag    840
attcagcaag agaaagaaga agccaacctg aaaatcgaat ttgtgaaaag aaaaatggaa    900
cagaaagccc aagaagaggc tgcggaaaaa taa                                 933
```

<210> 2583
<211> 609
<212> DNA
<213> B.fragilis

<400> 2583

```
catatggcaa agactaaaac cggaatcttc agcggctctt tcaacccgat ccacatcgga     60
catctggcac tggccaacta tctgtgcgag tttgaagggc tggatgaagt ctggtttatg    120
gtcacccccgc acaatccttt caagaatcag gctgatttat ggccggacga actgcgtctg    180
caactggtac agcttgctat tgagggatat ccgcgattcc gggtatccga tttcgaattt    240
catctgcccc gtccttctta tacgatccat acgctcaatc gcctgaaaca agaatatccc    300
gaaagagaat tccagttgat tataggatct gacaattgga tggtatttga ccgatggttc    360
gaatcggaac gtatcgtctc agaaaataag atactcgttt atccccgtcc gggattctct    420
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agttctacct tcatcagaga agccctggct accggaaaag atatacgtta tttccttcat    540
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catacctga                                                            609
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<210> 2584
<211> 441
<212> DNA
<213> B.fragilis

<400> 2584

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atggtaaaaa agataacaat aagtaaacgt gaccgggaga agctaaagga gcagaaacgt     60
aaggagaagc aacaacgtaa agaggaacgc caaagtaacg gtccgagttc ttttgaggat    120
atgattgcat atgtcgacca gttcggtgtt ttgcattcag tgccgcagga aaggcttgag    180
gaagaagtgg atgcctctca tatcgaggtt tctgtaccca aacaagagga tgtggaagtg    240
gctccccctta tgggacgtat cgagtatttt aatgccgcga aaggctatgg ctttgtgaag    300
gatgcggatt gtggcgaaaa gtatttcttc catatctctt ctgcccctgc gacaattgcg    360
```

```
gaaggtgata gagtgacatt tgaaatagag cgcggtatgc gtggaatgaa cgctgtacga      420
atatcaatag tgactgaata g                                                441
```

<210> 2585
<211> 1317
<212> DNA
<213> B.fragilis

<400> 2585

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tcacctcgaa acatggcttc atttgtaatc gaaggagggc acagacttag tggggaaatt       60
catccccaag gtgccaaaaa cgaagtgttg cagattatct gcgctacatt gcttactgcc      120
gaagaagtaa cagtgaataa cattccggac atcctggacg tcaataacct gattcagtta      180
atgcgggata tgggcgtgac ggttgcaaaa acaggtgtcg attcgtatag ttttaaggcc      240
gcgaatgtcg atctggccta tttggaaagt gacaacttcc tgaagaagtg ttccagcctg      300
cggggatctg tgatgctgat cggtcctatg gtcgcccgtt tcggtaaagc catgatttca      360
aagccgggag gagacaagat cgggcgtcgg cgtctggata cgcattttat aggaatccag      420
aatctgggag ccgattttac ttataatgaa gagcgggaaa tatacgaaat ttcggctgaa      480
gaattgaaag gtacatctat gttgctcgat gaagcttctg tgaccggaac tgccaatatc      540
gtgatggccg ctgtactagc caaaggtaaa acgacgattt ataatgcggc ctgtgagccc      600
tatctgcagc agctttgtaa gatgctgaac cggatgggag cgaagatcag tggaattgct      660
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ccggatatga tcgaggtggg tagcttcatt ggtatggctg ccatgacccg tagcgaaatc      780
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gcacagatta ttctttgcga tccgcaccgt gcggttgtta tcggacataa tcatggattt     1140
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gcggctatga cgccgaagg tatcagccgg attcataaca tcgagcagat agaccgcgga     1260
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```

<210> 2586
<211> 465
<212> DNA
<213> B.fragilis

<400> 2586

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tattcgatct atctggcagg atgcaggcac ggctgtccgg gttgtcataa cccggaaagc      120
tggaacccgc aagccggtga ggaactgtcc gaaggacggt tggcttccat catccgcgaa      180
ataaactcga acccgttgct cgacggagtg actttctccg ggggcgatcc tttttatgat      240
ccggaagcat ttttgcctgt catccggaga gtaaaaacag aaacgggaca gaatatctgg      300
tgctacacag gatatactta cgaggaaata gaatcggatc cgaaactggc agccatattg      360
ccttacatag atgtactggt ggacgggcgc ttcaaacagg aactttattc accgcatctg      420
gaattcagag gaagcagtaa tcagcggatt atcaaactga aatag                     465
```

<210> 2587
<211> 633
<212> DNA
<213> B.fragilis

<400> 2587

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gatcacatga atgcaagcaa gactgatatt cgcattacat cacctgaccg ggaggtactt       60
tcgtactccg gtgtccccaa agaacatcct tttgtgaagg aatccccaga gctgtttttgg      120
tatgccgttc gtgtcactta cagccgtgag cttgctttaa aagagtatct cgatggcgaa      180
tgtatcgaga attttatccc catgcactac gaatacatcg tcaagaacga gcgccgcgtg      240
cgtaaattgg ttcctgcggt ccacaacctg gtgtttatcc gttcgagccg tgaacgtatc      300
gatcgtatca aagacgagat gggcatgacc cttccgatcc gttatatcat ggatcgtgaa      360
```

```
agccgccagc ccattgttgt ccccacttcc cagatgcgca gcttcatggc ggttgccggc   420
agttacgacc agcaactggt ctatctcgaa ccctcagccg tagctttccg taaagggcag   480
cgtgtgcgtg tgacaggagg catctttgcc ggcgtcgagg gtgagtttat ccgtgtgaaa   540
aacgatcggc gtgtgatggt ttccatccag ggtgtcatgg ccgttgccac cacctacatc   600
catccctctc taatcgagcc gctcgatctt taa                                 633
```

<210> 2588
<211> 1425
<212> DNA
<213> B.fragilis

<400> 2588

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ggaaaaatga aattacctat atcatttatc gaatcgaccc gtgcgttgat gggagatgaa    60
gagtatcaag aattgtctgt tgccttggag caagaacctc ctgccagtgt ccggctgaac   120
agtaagtttc ccggtttagc cgcctgttca tccatctcag gacgtatccc ctgggcggca   180
gaaggctatt atctgaacca acgcctgacg tttacgttcg atcccctttt tcatgccgga   240
tgttattacg tgcaggaagc ctcgtcgatg tttgtggaac aggtgctccg ccgttacgtt   300
acaacccctg tcaagatgct cgatctctgt gccgctcccg gtggaaagtc gacccatgcc   360
cgcagtgtat tgcccgaagg cagtctgctg gtagccaatg aggtgattcg caaccgttcg   420
cagatactgg cggagaatct gacgaaatgg ggatatgccg atgttgtggt taccaataac   480
gatccttctg attttttccg gatcggttct tttttcgatg tcatactgac ggatgtgcct   540
tgttcgggcg agggaatgtt ccgtaaagat cccggtgcca tagaagagtg gagtcccgag   600
aatgtagaga tttgctggca gcgccaacgc aggattatca ctgacatctg gccttgcctg   660
aagccgggag gaatcctgat atacagtact tgtacctata atacgcgcga ggacgaagag   720
aatattgcct ggatcaggca ggagttcggt gctgagccgt taccgcttgc cgttcccacg   780
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cctcataaga ctcagggaga aggtttcttt ctcgccgctc ttcgtaagcc ggaagaagac   900
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gcttcacctg tatctaaaga aaatctggct attgccaaaa gttggttggc gtcttccgac  1020
gaatataatc tattggtgaa cggcactgcg attactgctt ttccggtgta ctaccaaaat  1080
gatctggcac tgcttcgtca gtctctccgc atcgtccagg ccggtacgga agtggctgaa  1140
gtaaaaggca aagatctgat tcccgcacat ggacttgcta tgagtcgtct gttgaaaacg  1200
tcggtttttt caaccgaagc attgacttac gaacaagcca tcgcctatct gcggaaagag  1260
gctatcgtcc ttccgccttc tgttcccaaa ggttatgtac tggtcactta taaagagatt  1320
cctttgggat ttgtgaagaa catcggcaat cgcgccaaca atctttatcc gcaggagtgg  1380
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```

<210> 2589
<211> 3099
<212> DNA
<213> B.fragilis

<400> 2589

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gacgtgttcc ccgacctgaa tgcaccgacg gtggtcatca tgaccgaagc caacggaatg   180
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accggtgtgc gccgggtacg ttcatcttcc acgaacggat tctctgtcgt atgggtagaa   300
ttcgactggg gaaccgatat atacctcgcc cgccagattg taagcgaaaa gctggccatc   360
gtaggtgaag aactgccttc aaatgtaggc aaaccgacac tgggtcccca atcctccatt   420
ctgggcgaag tcctgattat cggattaacc gccgactcga cctccatgct cgacctgcgt   480
accattgccg actggaccat acgtccgcgc ctgctctcta ccggaggtgt agcacaggta   540
gctgtattgg gaggagagtt aaaagaatat cagattcaac tcgatccgga acgtatgcgt   600
cattatggcg tatctatgaa tgaggtgatg accgtcaccc gcggcatgaa cctgaatgcc   660
aacggaggtg tactttatga atatggtaac gaatacattg tgcgtggtgt actctccacc   720
gcaaacatag aacaactggg taaagcggta gtaaagagta tcgacagcgt acctgtactg   780
ctggaggata tcgctgatgt ccggatcgga ccgaaagccc caaactggg aacggcttcg   840
gaaagaggga aacctgccgt actgatgacc gtcaccaaac agcccgccac cagtactctg   900
gagctgaccg acaaactgga agcttcgttg caagacctcc gaaagaatct tccaccggat   960
```

```
gtaaaggtat ctaccgatat cttccgtcaa agccgtttca tcgacagttc catcagcaat    1020
gtaaagaagt cccttttga aggcggtatc tttgtagtca tcgtcttatt cctgttcctt    1080
gccaacgtgc gaaccacgat tatttcgctg gtgaccctgc cgctctcact gctggtatcc    1140
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atcgccattg gttcgctggt agacgatgcc attgtcgatg tagaaaacgt atacaagcgc    1260
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gccatcggca atatccccgg cattgccgac ctgaatgtgg aacaacagat tgaacgcccg    2160
cagctcaaaa tcactcccaa acgtgaaatg ttggctaaat acggcattac cctgccggaa    2220
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atacgcaacc tgatggtcga cacccaagac ggtaaaaaag tgccctgag ttatattgcc    2400
gacgtagcct cgtccatggg gccgaatacc atcaatcgcg aaaacgtaaa acgtaagatc    2460
gtgatttccg ccaatgtagc cgaccgcgac ttgcggagtg tggtcaatga catccaaaag    2520
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gaaagcgaac aggcagccag ccgtacattg gcactgacct ccttcatgtc catcgtagtg    2640
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aacctgccgc tggcactgat cggcggtgtg tttgccctgc tgatcacaac cggcgaaatc    2760
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atggcaaaag tgattctggg cggtctgctc acatcgactt tcctgaacgg attcattatc    3060
ccgattgttt acctgatgat gaacggaaaa agaaaataa                           3099
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<210> 2590
<211> 420
<212> DNA
<213> B.fragilis

<400> 2590

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aaagcaaacc tattatataa aatggatatt gaagaaatta aagattttcg tcccttatt     60
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tgtgacattc tgtgggcgaa gaacggtgaa gaaatgttga acttataccg tgaacacact    180
caagatgcac atgctatcct tatggatatt aaaatgccga ttatgaacgg attggaagca    240
acccggatta ttcgtgaaga aggagcttcc ctccctatta ttatgcagac tgcttatgct    300
ttcagctcag accgggagaa tgccatgcaa gccggtgcat ccgaagtatt ggtgaagccc    360
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```

<210> 2591
<211> 1452
<212> DNA
<213> B.fragilis

<400> 2591

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tatatgaacc tgaacccaat aataaataat ttccaacgcc caatacgaaa agtacaaatc     60
tgttgcatat tgatattcag ttgtgcagcc tgttcgctca atatccccta cgagaatcag    120
```

```
tattcagatc cggatgccat taccacagta actgccgcac gcgaactatt ggcatcagcc    180
tatgatgcaa ttcccaaacc ggaattcagt ttatccgtat tgagcgacga cttccagcct    240
acttttttaa taaacttgaa tgccgacctg aataacctgt ataaatggca tcctaaaccg    300
atggaggact tatcgaactc tctgtgggaa aaatattact cagccatagc catagccaat    360
acggtactgg agcgcatcca ttatgtatcc cctatttcag acagtgacaa gcaagagttg    420
caatgtatcg ttagcgaagc gaaaacccta aaagcgtatt gttacttcaa tctgctcaga    480
cttttgccc ccacctatcc ggaaggtccc gaaaaagacg gaatcatctt aaaagagcgg    540
ttcgaacttg cttttctaaa acgctcgagc atcagtgaat gtgtgaatgc tatccgccaa    600
ttgctgaccg aagcagttac cgtagacaac cgtccttcac aggtctactg gtttttcccgg    660
caaagtgctt attatctatt ggcagcctta gaactctatg ccgaaaatta cgataaagcc    720
gaagaatatg ccttaaaaat cctgtcttca accaatgcat acaatgtctt ggcccccgta    780
cattataaaa aactatggga acaagaacca tgcgaggaat gtattttttc tctgcatacc    840
accaattcat attataccga tatgaattac gaaaggaaga aaggagacta cttcacgatc    900
aactccacac tcacccaatt atatactgcc aatgacatcc gttacgaagc aacggtctat    960
ccccaagaaa tgcctggtga aagcatcggc gagaccttac cggtactata tctgggaaaa   1020
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ctttccggcg ctcccctatt gaaagctatc cttcaggaaa agtggaaaga gtttgccggt   1260
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ctctctgcca caatgaaaaa taaaccaatc aaaccagatg actaccgctg gcttttcccc   1380
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atcgaaaaat aa                                                        1452
```

<210> 2592
<211> 1290
<212> DNA
<213> B.fragilis

<400> 2592

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ataaagactg aggttttgaa attatacgtt ttaataatag cgatcattct ctctataggc     60
actgcccgaa cacagaatat tgacagcctg ttgatgcagc gggaggacac cacacaattc    120
atccgaagcg actccctcgt gttacaattt ctggaatact cgaatatccc cataaccgat    180
aataataagg tgaaacttat caaaagcgga cgggaaaaat ttgaggactt gttcgaagcc    240
atccgtgggg caaaacacca cattcatctg gaatatttta attttcgcaa tgactccata    300
gccaatgcac tgttcgacct gctgggcgaa aaagtgaagg aaggtgtcaa agtaagggcg    360
atgttcgatg cattcggtaa ctggtcgaac aacaaaccac tcaagaaaag acatctgaaa    420
gcaatccggg agaaaggaat cgaaatcgta aaattcgatc cgttcaagtt cccgtatatc    480
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accggcggaa tgaatattgc cgactattat atcaacggac tccccaagat aggcacctgg    600
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```

<210> 2593
<211> 1347
<212> DNA
<213> B.fragilis

<400> 2593

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cggtatccaa ttgaattttc cgtcggcaaa agccaatgca caacctatca ttaccggagt   120
aatggcacct gccagtgttt tggggcgggc cgcaagtatc catgcctgca acgagttacg   180
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aaaacgtata ttttttgcttt tttgtctatc tttgcgctcc tgatattaga gaatatgaag   300
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aatctggttt ctccgattcc tcgtccggta ttgaatgttg attctgtccg tccggatagc   420
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ggaatcggta cctcaaataa gaatatccgt atcggtgcac ctgccgagat tgtgataatt  1320
acactgcatc gtctccgaaa tgaataa                                      1347
```

<210> 2594
<211> 1449
<212> DNA
<213> B.fragilis

<400> 2594

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aagatgatag agttgactca ggaggaattg aagcagcatt tcagtgagcc cattttcggt    60
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cgtgacattt ttctgcaacg tccttctaaa gatatagatg tagtagtggt ggggagtggc   180
attgcgatgg ccgaagcgtt gggaaaacgt ttgggacgcg gtgcgcatgt ctctgtttttt   240
aagaatttcg gtacggccca ggtgaagtgt cacggtacgg aggtggagtt tgtaggtgcc   300
cggaaggagt cgtatcaacg ggattcccgt aaaccgatgg tggaggacgg gacgttggaa   360
gacgatcaga atcgccggga ctttacgatc aatgcactgg ctgtctgcct gaacaaaggg   420
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aacctttggc tccgttggag tgctctgttg catgacattg ctaaaccggt gactaaacgt   900
tgggagccga aagcgggatg gaccttccat aatcataatt tcatcggtga aaagatgatt   960
ccgaatatct tccggaagat gaagttgccg atgaacgaga agatgaagta tgtacagaag  1020
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gtgagtggag aagagattat ggaggtgttc aatctgggac cttgcaggca agtgggctcg  1320
ttaaaaagtg ctataaagga cgctattttg acggagtga ttcccaatga atacgaagcc   1380
gcctatgcat ttatgcttca aaaagccgca aaaatgggat tgaaacccgt acaaaacaaa  1440
gaggtttag                                                         1449
```

<210> 2595
<211> 618
<212> DNA

<213> B.fragilis

<400> 2595

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catcgagcag atagaccgcg gatatcaaaa tatcgaaggt cgactcaacg ctatcggtgc    60
aagaattaca cgaatatgat aaaaagagaa gatgtataca agataggctt gttcaataag   120
ccacacggca tacacggtga attgtcgttc acctttaccg acgatatttt cgatcgggcg   180
gattgtgatt atctgatttg ccggttagat gatattttg ttcctttctt tatagaagag    240
tatcgtttcc ggtccgattc cacagctttg gtgaaactcg aaggtgtaga cactgccgaa   300
cgtgcccgta tgttcaccaa cgtggaagtt tattttccgg tgaaacatgc cgaagaagcc   360
gctcccgggg agttgtcctg ggatttcttt gtcggattcc gggtggaaga tgtccgtcac   420
ggtgctttgg gagaggtgac ggatgtggat acgtctaccg ttaatacact gtttgttgtg   480
gaccgtgatg gcgatgaatt gctgattcct gcacaagaga aattaattgc cggtatcgat   540
cagaagcaca aaatcattac agtcgatttg cccgaaggtc tgctgtcttt ggacgagtgc   600
gatgatgaag aaagttaa                                                 618
```

<210> 2596
<211> 297
<212> DNA
<213> B.fragilis

<400> 2596

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aatcataaag aacttttta tggaagtgct acaaaaataa acaaaatcgg acttcttcgg     60
ttgggggagg tagtgatata taagttttt tacacattga aacttgatgg ggagggagtg    120
gaaggtcgtc ttcaccacag atttcacaga tcgacttcca atgttatcgt tgatagtccg   180
tccgataaac cattcgatatt tgtgcaatct gtggtgattt cgacgcttgt ttatttatat   240
ctatttcagt ttgataatcc gctgattact gcttcctctg aattccagat gcggtga      297
```

<210> 2597
<211> 1215
<212> DNA
<213> B.fragilis

<400> 2597

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acggaaaaag aaaataataa gaacttcaat aattatatga aacgaataac catacttgcc    60
gctaccctct tcgcgctatc cggactgcaa gcgcaaacca gtatagacgg ggtgctgcgc   120
aacattgaaa ccaataataa agagttgcaa gccaatgcgc aattgattgc ctctcaaaaa   180
ctggaaaccc ggacagacaa caatctgcct gatccgactc tttcgtatgc ccatttgtgg   240
aataataaag acaagaataa tacgatcgga gaacttgtag tctcccagag ctttgatttt   300
ccgagcctgt atgctacccg cagtcaactg aaccggctga aagccggtgc ttttgacggg   360
cagaagagtg tattccgtca gggcatcctg ctacaggcaa aagatgtgtg cctggatatc   420
atcatgctgc gaaagcaaca gcagatactg accgaacggc tgcgaaacgc cgaagagctc   480
tcagccatgt acgccaagcg tttgcaaaca ggagacgcca atgtaatcga aaccaataag   540
atcaatctgg aattgctgaa cgtgaagaca gaagcgtcac taaacgaaac tgctttacgc   600
aataagattc aggaactgac tgcactgaac ggaaacatac cggtcgtgtt tgaagatgct   660
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tcggactata ccctccaggc actcaacagc gaaagtgccg ctgcccgcaa acagattgcg   780
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ttgacgggcg gacaaatcag tatgatagaa tactttgtag aagtatcggt agtctatcag  1140
agcaaacaga actatctgca actggagaat cagtaccaga aggcaatggc aaagatatat  1200
aagaataaac tgtag                                                   1215
```

<210> 2598
<211> 531
<212> DNA
<213> B.fragilis

<400> 2598

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acatcaatgg aacacaagaa aacgaagata gtactctatg ctgatgtaat tatccatttc    60
atggaggcta attatttctc aatattaccc gatatatttc ctgagtacga atacttgata   120
ttggatgtgg tatataatga aatttcccaa aattccggta caaaagattt tatagataaa   180
tatctccatt tcttccctaa attgaaaaaa gaagtttttt ccccaaagag ggaatcaatg   240
aaagagttct ttttattgca acgcactctg ggaaaaggag aaagtgcatg catgatctat   300
tgcagggaca accgagacgt attgggaagc agtaacctga aagacataaa agaatattgc   360
tccaagaata atattaccta tctgactaca cttgattttt tatattatgc ttactgcaga   420
aagaaaatga cagagcaaga gtgtaaggaa ttcatgcagg aagtaaataa tgcgggaagc   480
aaacttccga tcatcgatat aacccaatat acatgtaccg tacaaattta a            531
```

<210> 2599
<211> 903
<212> DNA
<213> B.fragilis

<400> 2599

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aaaatgatac ttcaaaccat taaacagatt tcatgcctgc tctgcctgtg ctgtttcctt    60
cagcagtcag ccttctctca ggatgataag gacaaaccgg cctataccct gttcgacaac   120
acaggaaaac aaatcagcta cggagaatta atcaaacgac tctccggcta tgatgttatc   180
ttcctcgggg aactgcataa ctgccccatc acccattggc tggaattcga aataacccgt   240
tccatctata acattcataa agatcaactg atgctgggag ccgaaatgtt cgaaagtgac   300
aatcaactga tttttgacga atacatgcag caaaagatct cttacgaccg ctttgaggcc   360
gaagcccgtc tatgggataa ttaccggact gactattatc cggttgtttt ctttgccaaa   420
gaacatcaca ttccgttcat tgcaaccaat atcccgagac gctacgccaa cattgtaaaa   480
aataaagggt tcgaagcact cgactcgtta tccgaggaag ccaaacgata tatagctcct   540
ttaccgatcg atttcgaata tgatgaagcc caaagcgcag cagctttcag tatgatgaac   600
atgatgggag gacgccgggc cggcgacaat cggaagttgg cacaggcaca agccataaaa   660
gatgctacaa tgggatggtt catagcccgt aatatcaaaa ataaattcct gcatatcaac   720
ggtagttatc attccaaccg acagggaggc atcatccctt atctgctccg ttaccgcccc   780
aatacgagta tagtgacggt aacctcggta cgtcaagagt ccatccggaa actggatgac   840
gaccataaag gcttggcaga cttttacatc tgcgtacccg aagacatggt aaacagttac   900
taa                                                                   903
```

<210> 2600
<211> 318
<212> DNA
<213> B.fragilis

<400> 2600

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tatgtcgttt gttttttgtta tctttatgct attgtaaagt tccgattatt tattaatttta    60
aaattgaaaa acatgaaaga tttagaagat gacgagagag agtttcctat ccgtgtatat   120
acaaaagtcg agttggctct gctttatgca ccccatttgt ctgaaaatgc cgccctcaat   180
aatctcagcc gttggatgcg gcacaacaaa ctcctgatgg ctgcgctcga ggaggtggga   240
tactataaat accgccattc atttacgccc aaggaagttc gtctgatctt tcgatatatg   300
ggagaaccgg gagcataa                                                   318
```

<210> 2601
<211> 888
<212> DNA
<213> B.fragilis

<400> 2601

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ctcgtaactt gtaacattca aaatatgaaa ggaattattc ttgccggcgg tagtgccacc    60
cgactctatc cgttgtcaaa ggccatatcg aagcaaatga tgccggtgta tgacaagccg   120
atgatatact atccgctttc tacattgatg cttgccggaa tacgggaagt gttggttatt   180
tctactcctc gtgatctgcc gttgttccgt gaacttctgg ggagcggtga agagtttgga   240
atgtcctttt catatctggt gcaggagcag cctaacggac ttgcccaggc ttttgtgctg   300
```

```
ggagccgatt ttctgaatgg tgaaccgggc tgtttgatat taggagataa tttgtttttac   360
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tttggatatt atgtgaagga ccctcgcgcc tatggcgtcg tggaatttga tggaagtgga   480
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ctttatttct atgatgctac ggtgactgaa aaagcgcttg ctttggagcc ttctgcccgg   600
ggtgaatatg aaataactga tttgaacaag ctatatctcg acgaaggaac actgaaagtc   660
gaactctttg gccgtggctt tgcctggttg gatacgggga attgcaacag tttgctcgaa   720
gcctctaatt ttgtggctac tatccagaat cgtcagggat tttatgtcag ttgtattgaa   780
gagatagcct ggcgtaacgg atggatttct tctgctcagt taaaagcttt gggcgagaaa   840
ttggaaaaga ccgaatacgg taaatatctg atagacttag caaattaa            888
```

<210> 2602
<211> 1188
<212> DNA
<213> B.fragilis

<400> 2602
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aaaatacatt gtattctaat aatgaacgag ataaagaaga aacaaatagc tatcttaggc   60
tctacgggtt ctattggtac ccaagccttg caggttatcg aagagcatcc cgaactgtac   120
gaggtgtatg cactgactgc caataataag gtagatctcc tgatagccca ggcacgtaag   180
tttatgcctg aggctgtagt tatagccaat gaagagaaat atgcccaact gaaagaggct   240
ctcagcgacc tgcctgttaa ggtgtatgca ggtgctgccg cgttatgcca gattgtagag   300
tccggcccta tcgatgtagt cctgaccgct atggtggggt atgcgggatt gaagccgacc   360
atgaatgcca ttcgtgccgg aaaagccatt gcccttgcca ataaagagac actggtagtt   420
gccggggagt tgattaatca gttagcccgg caataccgta caccgattct tcctgtcgat   480
tccgaacatt cggcagtatt ccagtgtttg accggagagg taggcaatcc gatagagaaa   540
gttatcctga ctgcttccgg aggtcctttc cgtacatgta ctatggaaca gttgaagact   600
gtgacaaaag tacaggctct caaacatccg aattgggaaa tgggagctaa gatcactatt   660
gattctgcct cgatgatgaa caaggggttc gaagtgatcg aagccaaatg gttgtttggc   720
gtacagcccg gccagattga ggtggtggta catccgcagt cggttattca ttcgatggtg   780
cagtttgagg atggagcaat aaaggcccag ttgggaatgc ccgatatgcg tctgcccatt   840
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gcctatgaat cgatgtatag gggagggaat atgccttgca tcgtaaatgc ggccaacgag  1020
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gaacatacca tggggcaggt gtctttcgta cagactccta cttacgacga gtatgtggca  1140
accgatgcgg aagcacgccg gattgcccgt gaattaatat gtaaataa         1188
```

<210> 2603
<211> 879
<212> DNA
<213> B.fragilis

<400> 2603
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aatgaatcat gcggaattca ttttttgctct gtacgggatg ccctactttt gcatcagatt   60
caaaaacaag gaaattatag acataaaatg aaaaagattg aatgtatcat tatggactgg   120
gcaggaacgg cagtcgatta cggatgtttc gctccggtgg ctgctttcat caaagctttt   180
gccgggaagg gactcacgat cgatgtcgag cagactcgta agcctatggg gttgccgaaa   240
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tatcgacgtg cctggacaga ggaggatgtc gtagaactga accacctgtt cgagaaatat   360
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aagttgcgtg ccgaaggact gaaaataggt tctactacag gctatacccg cgagatgatg   480
gatgtggtac tgcccgaggc acaggccaaa ggataccggg tggattactg tgccactccg   540
aatctgctgc ccgccggtcg tcctgctccc tatatgattt ttgagaatct cacgaaactg   600
gcggttcccg atccggatac agtggtgaag gtaggcgaca ccattgtcga tattcaggaa   660
ggtgtacatg ccaaagtatg gagtgtggga gtggttctcg gaagtaacga gatggcactc   720
accgaagaag agacgcacgc cttgccggct gccgaactcg agaaccgtat tgctgaagtg   780
aaacaacgta tgctggctgc gggagcctcg tatgtcattc gaagcattga agaacttccc   840
gcactgattc aactaattaa ctcaaaacta aatcattaa                       879
```

<210> 2604
<211> 327
<212> DNA
<213> B.fragilis

<400> 2604

```
tctgaggttc gcttctttat ctcacggatg gactcttcgg gcgaaagctg ggatacttgc    60
tttttgtca  actataaacg agggcttaca cgtccgaaaa ctgaattaga ttccatgagt   120
aaaagaaaac ttgccaccca atttgaagaa gaaccttttt cgtatgtgtt cggttgccgc   180
accttcgtta tcgaaatacc ggattctaag attattatgg cagaaaattc aaaacagttt   240
cttctaacca agatgtcttt tttatccatt tacagcgatt atcttaaaat tatcccgtat   300
ttttgcacaa aacttttggt aaatatga                                      327
```

<210> 2605
<211> 288
<212> DNA
<213> B.fragilis

<400> 2605

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aaaagaaacc gtatgaaaaa attagttttc tgtgctgctt ttgtcgcagc aatgtgcatg    60
gcaggcacta ctactgccca agctcaagac gtaaaaaaga aagaagtcaa gaaagagcaa   120
tgtgacaaaa aagacagcaa agcatgctgt aaaaaggaaa aaaagcatg  ttgcaagaaa   180
gaagcagata agaaaacaac tgacggatgt aaacacaaag ctgattgcaa ggctaaagcc   240
ggatgcaaag acagcaaatg taccaaagac aaaggaggca aaaaataa                288
```

<210> 2606
<211> 1689
<212> DNA
<213> B.fragilis

<400> 2606

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ataaacaagc gtcgaaatca ccacagattg cacaaatatc aatggtttat cggacggact    60
atcaacgata acattggaag tcgatctgtg aaatctgtgg tgaagacgac cttccactcc   120
ctccccatca agtttcaatg tgtaaaaaaa cttatatatc actacctccc ccaaccgaag   180
aagtccgatt ttgtttattt ttgtagcact tccataaaaa agttctttat gattctacat   240
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atttgcgttt gtcgcagcag tggtaagcag catgcggctt tcacaaccct ccacattaaa  1620
```

```
gacgaagccc cgataaccat ctcaatccac gtatatcgtc ccaccggaag ccagagtaac      1680
acaaagtga                                                              1689
```

<210> 2607
<211> 714
<212> DNA
<213> B.fragilis

<400> 2607

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acgttcgatg gcgccgatga agtagatccc gatcataacc tgatcaaagg tagaggcgga      360
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gaaagcaagc aggtttcttt tctgggaagc cgttttcctg ttcctatcga agtgtttccg      480
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gcctggttcg gcaatattca ttcgtctctc gagaaagaga taaaatcaat cacaggagtt      660
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```

<210> 2608
<211> 2106
<212> DNA
<213> B.fragilis

<400> 2608

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cagaaaaaga ttaatgcatt tgataacacg acttttttgta ctgcttattt gtctgacgga      180
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caaggggagg ctccggccac tgccctggcc atgagttcga acaattattt tatcgccgcc      540
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aacagcgagg tatttctgct gaccaatcgt acgaaacaaa tggtcttctg ggatgcaaac      960
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gtaatcccgg gagtggatgc gaatggtaaa aagattctga actacaaggt gggttaccaa     1620
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gactttgcca aatatctttc tgaaggtaag caggtgaagg tgattattac gggatcggca     1800
gacgcagccc cgattcgcgg acgtctggct tatgacggac gttatggaga atttgtggac     1860
```

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gaaccttatt ataaggatgg taacctcgat aatatcacag tcaccaaggc cggaggaatc     1920
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aacgtgacaa cattgggtaa tacaaagaac gaatacgaat atcatgtgga agtagccaaa     2040
gagcgtggtg gagaattccg caagatcaac gtagagtttg taattatgga tgcatttcaa     2100
caataa                                                                 2106
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<210> 2609
<211> 417
<212> DNA
<213> B.fragilis

<400> 2609

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aagaacgact tgacaccgga accccagtgt cctaaacatt atcatcatcc gggcaacgat     180
tcgtgctgca atgacggatg tatgacacgc ctcaactcac caacccttc cgtacaggca     240
gacaataatc ctcattacct atttactgcc atcttattta cggactttat catagagaat     300
ttattcaggc cccaggagcg acgtattaag aattattacg cataccggga gtctctccac     360
ggtacggctg tcaaccgtgc atttggcctt cgtgcccctc cataccctgt tgtatag       417
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<210> 2610
<211> 300
<212> DNA
<213> B.fragilis

<400> 2610

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atcaaatttc ttatatctaa aatatcaaca gcccatttta tcaatccgaa agagagtaac     180
ataaaaggaa aattagatac aacattaaat cctcctaaaa cacttcccag tattccgcct     240
aaaaacctca ttaaatctgt agaagaagta aatgggaatg gaattccaga agtcatataa     300
```

<210> 2611
<211> 1122
<212> DNA
<213> B.fragilis

<400> 2611

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acttttggcg atccgatcca ttatatgact tctggaattc cattcccatt tacttcttct     180
acagatttaa tgaggttttt aggcggaata ctgggaagtg tttttaggagg atttaatgtt     240
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ttagatataa gaaatttgat agatgataaa attcttctta ttattttgag tttacctaca     360
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gtggcatttt ctttgtgctt atttttttaaa cctcaatatt taccatttat agtttctact     540
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gtcttttatg tatctgccat tatatttgtt ttgtatcttt ctcgtgattt gattgattta     660
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gatacattgt ttttcgtgaa caaatatgat tatttctcta agcccctat ggggattttt     780
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aaattgattg taaatggcat agttaattta cgattgattg ttagttatag tatattattt     960
cttggaattt tattagtgca ctatcctttt ggggtgttta atgcaggatc ggcaacaaga    1020
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```

<210> 2612

<211> 2868
<212> DNA
<213> B.fragilis

<400> 2612

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gagggacgcc ttcccaacgg actgcactat cttatcctgc acaatgcttc tccggcatcc   180
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ggttgtgccc acttcctcga acacatcact ttcggcggta cccgtcattt tcctaaacgc   300
tctttagtag agtacctcga gtccttagga atgaagtacg gacaagatat caacgctttc   360
accggtttcg accgtacaat ctatatgttc gcagttccca ccgattttgc caaagacgaa   420
gctctcgatc gttcattact aatcctgcac gattggttgg acggtgtcac tatagatccg   480
gaaaaagtag agaatgaaaa aggaatcatt cttgaagaac tacgcggatt cgacccggaa   540
gacgatttct atccgctcaa aatcggacaa ggcatattca gtcaccgtat gcctttgggc   600
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tctaaaatca aagaacgttt caaatccttg cccggacgtc cggtcaatga cttccggaac   780
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gccatagcaa aggagaaagg cgcctgctc gtcagtgcca tttcttcacg attccgtgca   960
cgaaaactaa agaccgatgt tacagaccaa tggtatttaa gtgacaagaa ccattttgtt  1020
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aatttttgcc gccggatgaa attgtccacc gatgccccgt cacgtccttc ctccatgtgg  1200
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actcccgcca tactccgcga agcattccgt cgctatctgg ataccgagaa ttatatcctt  2820
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<210> 2613
<211> 2163
<212> DNA
<213> B.fragilis

<400> 2613

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ataggaaggc tggtcagtga aggaaaaacc aaggaggcgg agaatgtgaa gcggcaactg   180
gactacttca ccgtcacggc aaactatcat gaatgcaggc tggcgcacag catagcagca   240
tacaacgaca ccagcaccat cgacatcgac aagctgcggg aagaggaact ggaacgcata   300
cgggctctga tagaagccga cgaagcgacg ctcgcctgtt tcctcaccgc caagcagcac   360
ggtttcaaaa ttctggctta cctgacagac cttgaggcgg aggcgtggag aaactcgttc   420
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ctgacccgga aacactacga gaaactgctg caaacagagg tggacaccag cggaaaagac   540
ttgtcgagag gtgtcttcgc ctcgtatgac ccgaaggcgt tttactctgc cgaaagggtg   600
gcacgcatcc ccgaacggac actcaccatc gaagctcccg aacctgcaca aaggggaagg   660
aagaaaaaga agaacccga aacgggacag acgggagata tcagcgccta tacgtgtatg   720
gaattcaaca aatgcctctg ctccacgcaa aggctgatga aatatacgga aggaagccgc   780
aattcgttcc tcttcaccct gggaaacaaa tgtttccgaa aagggctcga agagtcggaa   840
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gtgctcgacc gcctcgagat gtgcgactta tcccaaacgg aagagaaatc tttctatgcc  1080
atgcggaaca aggatttcaa ctccatcttc ctgaacatca gcagacaggg catagcttat  1140
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ggcaagcgtg taaacatcca tggcatcacg gagtatgccg tagtggaact cacacaacag  2100
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taa                                                                2163
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<210> 2614
<211> 2766
<212> DNA
<213> B.fragilis

<400> 2614

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agtgagcggg ataagggaac gaacgtaacg gccatgtatg attatttgat ggatagttac   180
gaaaatttca tgaaggttgt agaggcaccg gataacagtc agtatattgg aggcgccaag   240
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aaacaaccgt ccaaagcatt ggattttgct gctgcttata tcgatatgcc gcagctgaaa   360
ctgttccgta gtgaattgtt gccgaaagat aaccgatatg cttcggtggt gtattacgca   420
gctgtagcgg ccttcaatct ggagaagaac gaaaaagctt tgagatattt tcaggaatat   480
ctcaataccg gtacggaggc ccagcagaaa gactgctatg tttatatgaa tatgatttat   540
cagaagcaga agaagtatgc ggaccaagaa cgtgtgctgg aacaggctat tgccaagtat   600
cccgtttcgc ttgatttcct atacaatctg gtgaatgtgc atattgctac caataatatg   660
gagaagctga ttggagcaat agaccgtatt ctggctgtcg acccgaataa tgataaagtg   720
ttgcctatca aggcacgcat cctggagcgt cagggaaaga atgtggaggc attggatatt   780
tataaacgtc tttatgcact gcaccctgag agttttgaat tgatgacggg agtggcacgt   840
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gccaactttta actgtgctac ggagattgtg aacaatggtg ccactattgc caacgatacg   900
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ctgaaaattt tgcagaaaga tccttcttcc aaaatgtata tgcagggact ggccgggggtg  1020
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```

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<400> 2615
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aaggcttgct tcgtcgatga taaactgaat aatatattta aattcaaaac aaatgccgcg   2040
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taa                                                                 2103
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<210> 2616
<211> 363
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (11)
<223> Identity of nucleotide sequences at the above locations are unknown.

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ttcatggcgg agaatactgt ctttcttctg cttactgcat tgatacacaa tttctacaag   180
accatcatga gcaggcttga caccaaggct tttgggctca agaaaacgag tcgcataaag   240
gcttttgtct tcagattcat ctccgtacct gccaagtgga tcatgactgc aaggcaatac   300
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taa                                                                 363

<210> 2617
<211> 1134
<212> DNA
<213> B.fragilis

<400> 2617
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agacacaaac ttaattctca aaataaaaca caaatgatta gaacaatgat tgcgtcatgc   120
ttgttggcat gcagcgggtt cgtatccgca caaatgacgg gtggaaatcc cgaagaggtg   180
aaacaaactg ctccggctcc tctttacaga gatcctgttt atgacggagt ggccgatccg   240
gtcgtagtct ggaataaaga agaccgcagt tggtggatgc tgtatacaca gcgccgggcc   300
aatgtgaatg ccgggaacgt agcttattgc tatggaaatg atatcggtat cgcttccagc   360
cgtgaccatg gcaggacgtg ggtttatcgt ggagtactcg acctcaatat ggagagagga   420
aagaacactt tctgggctcc ggaggtggta aacttcaatg gggtatatca tttgttcgta   480
tcttatatcg agggggtacg aaccgattgg ggcggacatg cgcgcatggc tcactataca   540
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atcgatgcga ctttcttccg gatgcccgat ggaaaatggc gtgcctggta taaagatgaa   660
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gatacaccgg tgattgacca gagtcgccag gaagggccta aggtattccg tttcggaggt   780
tattactgga tgcttaccga cgaatggcac ggcatgcgtg tgtatcgttc aaaaagatgcc   840
actacatggg agaagcaggg agtgattcta gataaacccg gtacccgtcc cgaagatacg   900
ccgagcggtg cgcatggtga tgtggttgtg gtaggagata aggcttatgt tatctatttt   960
```

```
acccatcccg ggcgtaaggc acattccgaa gagaccaaag atgaagacgg taacatccct    1020
tatcatttgc gccgttcgtc ggcacaggtg gcagaattgt tgataaagga cgggcagttg    1080
gtggcagacc gttcgcctga gtttaatttc tatttgcccg atatggagga ataa           1134
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<210> 2618
<211> 1203
<212> DNA
<213> B.fragilis

<400> 2618

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atgaaaacta taatgaaaaa gctgtttatc tacgcagtag gcatctgcct actgcctgcc    60
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ctgtctgccg aaaccccggt tattaccgag tccgaaaaca ttccattaac agtaaatgta    180
gatttaacat tgacctgtga acaggacctc gtactcaact ttgaattgcc cgatgataaa    240
aacggagttc taaaattaga gaacaatccc gtcacgatta aagccggaaa acgttctgca    300
acattcgaag tagtttccaa ccaaaagaat ttattaaccg aagatacata ctttcaagtc    360
ggaatttctc aattccctac cgataattta atgttaaacg aaacattgca ggtacgtgtc    420
aagcccaacc ctaaaattcc ggaattgtcc cctcagcaaa aagcgttaat caaaggttat    480
aagaccaaat acggcattga cctgaataaa tggctcggag tcctctcttg ccataccact    540
gtgcaaagcc ctgcagatgg gtatctccaa cccttttgcag cagcatttac gaaagaatat    600
gatggcaaga ccgtcatcac tctcagtgag caggccacag aagacatgcc ggtattaaaa    660
atgacagaca atccattcgg actgaccgaa tatttatact ttgtactccg ttccgagacc    720
gtagcagatc cggaattctg gactcaacag ccggaaccgc aaaaactgat gaaactactc    780
aactggaata aagaaagtaa agagacattt gccgtatcat tggatgcaat cagactcaaa    840
gacatcactt ccacttcaac ccggctggaa tatctgggtc cgggaaaaaa ctattatgga    900
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ccggcttact acctcaactg ctacgatctt gtcaattccg acaactatga cacccccgaa    1080
aactttatca aatccaccgg aaacatagac tttgccacag ataaaatgac ttatcaattt    1140
ctcctgagcc atgtcaacgc cggaggatat acacgcataa ccgtagttta tgaaaagaaa    1200
taa                                                                   1203
```

<210> 2619
<211> 1254
<212> DNA
<213> B.fragilis

<400> 2619

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agaatttata tcatcatgaa gaaacttatc tttatgggaa tcctcggatt gtttatcctg    60
ggttcctgca acagtaaatc gggtggcaac cacgaaggcc acgaccatgg aacagaagca    120
cacgaccatg aacacgaagg gcacgaccat gaacacgaag gcgaagacca tgaaggacat    180
gatcacgaag gtgacgaaca cagccggagc agtgaaccgg ctaccggtca cagtgacgaa    240
atcattctgc cgaaagccaa agcagaagca gccggagtga aaacaagtat tatagaaccg    300
gaagtatttg aacaagtgat aaaaacaagc ggacaagtac tggccgcaca aggtgacgaa    360
tccgtagcag tagccaccgt agcaggagta gtcagctttc gcggtaaagt gaccgaaggc    420
atgagtgtag gcaaaggtac tgcactggtg accatttcat ccagtaacat tgccgatggt    480
gatcccgtac aacgcgcccg tatcgcttac gatatatcca gaaaggaata tgaacgtatg    540
caagcgctgg taaagaacaa aatcgtatcc gacaaggaat tcgcacaagc cgaacagaat    600
tacgaaaatg cccggatcag ctatgaggcc cttgccaaga atcattcggc aggaggacag    660
gccgtaacct ctcccatctc aggatttgta aaaaacatcc tggtgaaaga aggtgattac    720
gtaaccatcg gccagccatt ggtcagcatc actcaaaacc gtcgcctctt cttgcgtgcc    780
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ccttatgaca ataaggtata cgaactgaaa gaactgaacg gccgtctttt gtcattcggt    900
aaatcggcag gagaaaattc gttctatgta ccggtcactt tcgaatttga taataaagga    960
gacattatcc cgggctcgtt cgttgaagta tatttgttgt cgtctcccat ggagaacgta    1020
ctgtcgcttc cccgcacggc gctgaccgaa gaacagggc ttttcttcgc atacctgcaa    1080
ctggatgaag aagggtataa aaagcaggaa gtcaccctcg agccgacaa cggcaagagc    1140
gtacaggtac tttcgggtat caaggccggt gaccgggtag tgacccaagg ggcctaccag    1200
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```

<210> 2620
<211> 3060
<212> DNA
<213> B.fragilis

<400> 2620

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aacgctaata tgaaagcagt aatcatttct tttttttatca cccttttccac ccttactagt    60
catgctcagc aaagagatat tgtattgaca ggaacagtta cggatcatca aaacgaaccg   120
cttcccggcg ccaccatccg cattaagggt acccaattcg gtacagtaac agataccgac   180
gggcactatc tgttacgtgg caaatggaaa gaaaacgatc taattctttt ctctttcata   240
ggaatgaaag agatacgtgt gaaatatacc ggtcagaagg tacaagatgc agctatgcaa   300
gaagatccca aagcactgga cgaagtaatc atcgttgccc ggcagaatat caatgaattg   360
gatattcgtg ccaaatccgg tgttgtacaa cgggtcgacg tagaacgtct caacagtaaa   420
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accggcgacc tgggctccaa accggaaatt cgtattcgag gcaattcatc tttccgtaaa   540
ggagatatgg ctaacgaacc cctctacgtc atggatggca aagtaatatc atctgatgcc   600
ttcatgactc ttaatcccgc cgatattcag gaaataaagg ttctgaaaga tgccgtggct   660
tgtgccttat acggaataaa agcagccaat ggtgtaatag aaatcacctc ccagcgtggc   720
aatcccgacg gaagactaac caccagttac agtttcaata taggtatcac cacccgtgga   780
cgcagaggag tcaagatgat ggatagcgaa gaaaagttag aattagaaag acgtttacag   840
aatatatcga ctccgggata tcgatacagt gaagattact atcggaaata ttatgctacc   900
gcccccaacc tcgacgagct gatcgcagaa ggacaacaag tactcgactc attaaagaat   960
atccataccg actggtttga tgaactgata catcgcagca tctaccagcg ccataacctt  1020
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ggaggacgag taccgggtaa tgacactcaa cgtttcaccg cccgtatgag cctcgatcag  1140
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accaaaaccg gtaaattaat ctcctactcc gaaaaatcat ccgaatatac attaaatgat  1320
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aacggtttca ataccatgaa acgtaacatc ggtgtattac gcaatgaagg ctacgagctg  2280
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gcctttcagg catccaacct ttttatgatt actcctttata aagagtccga tcccgaaaca  3000
ggttcattgg ccggagctat gcagcccgta ttaaccatca atcttagttt gaccttctaa  3060
```

<210> 2621
<211> 501
<212> DNA
<213> B.fragilis

<400> 2621
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cacgaacttc tttatctcgg ttccgatggc agccccatct acagcgacca cttcagccgg     120
ttgaacggtg atgtactcag tcgtgccaat actttatatc cccatcatgg ctccaccgac     180
gaggaagaag cccgtttgtg cctttcgctt ctgatgggtt ataacgcgac gatctacaat     240
aacggtgaca aggaagtccg catccagcag atcctgaacc gttgttggga agtgctcgac     300
cgcttgcccg cttccttgct gaaggtgcgc cttctgactt attgctatgg tgaagtcttt     360
gacgacgacc tctcccgtga ggcgcatagc atcatcgaca gctggggaga gcgtgccctt     420
tccggcgatg aatgtgagat tgccgaacaa ctccgcagtc ttgaagagaa tccttatccc     480
aactgggaag tagaggagta a                                               501
```

<210> 2622
<211> 318
<212> DNA
<213> B.fragilis

<400> 2622
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aaaaagaata ttatgaagct aaaggaaata agtaaagaca tctacgatgt agatgcgtgg      60
ctggacgaag aacttggcaa ggagggaact cctgaacgcg aagcgtctat tgaaaaggca     120
tgggaagaat ataacgggca gatattgctg gatgcccgca aaaatgcacg tttgacacag     180
gaagagcttg ccaacagaat tggtgcggac aaatcttaca tctcaaaaat agaaaggggga     240
ttgattactc ctaccgtttc tacgctttac cgcattgcgg ccgctatggg tttgtcggta     300
gagttgcgcc cactttaa                                                   318
```

<210> 2623
<211> 540
<212> DNA
<213> B.fragilis

<400> 2623
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aatactgata tgaatatatt tggtacgtat gcttatgcat attttaaata tctattactt      60
aaagatatgg atgtattgat ttcttttttc aggaaaaagg gaatctgtat aggtgaaaac     120
tgttttattt attctgctat atgtactcct gaaccgtatt tgataataat aaaaaacaat     180
gtcactatat ctgtcggagt tcagttaata acacatgata atagtgtttg taaagtcttg     240
ccaaatagaa cagatgcttt tggtagaata gtcattggga ataatagttt tattggtgct     300
ggttcaataa tacttccagg agttacaatt ggggataatt gtattgttgc agctggaagt     360
attgtaacaa agagtttagg tgataatgtt gttattggag gaaatccagc taaaataata     420
tcgacaatag atgagtataa agataaaatc tctgataaaa gttttaatgt aaatgggatg     480
acatttgttc aaaagcgaaa tcatatatta tcttctttgg ataaattaat acagaaataa     540
```

<210> 2624
<211> 1644
<212> DNA
<213> B.fragilis

<400> 2624
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agaagcgata tgatttcagt agacggactg gccgtggaat tcggcggaac cacattattt      60
agcgatattt catttgtaat taacgaaaaa gaccgcatcg cgcttatggg aaagaacggt     120
gcaggtaaga gtaccctact caagattctg gcaggcgtac gtcagcctac ccgtggcagg     180
atatctgctc ccaaagagtg cgtcatagcc tatctgcccc aacatttgat gacagaagac     240
gggcgaacgg ttttgagga gactgcccag gcctttgccc atctgcacga aatggaagct     300
gagatagaac gcatgaacaa agagctggag acacgcacag actatgagag cgacagctac     360
atggaactga tagagaacgt gtcgactctc agcgaaaagt tttatgccat cgacgccacc     420
aactacgaag aggacgtaga aaaggcactt ctcggattag gcttcatgcg cgaagatttc     480
```

```
caccgccaga ccagtgactt cagcggtgga tggcggatgc gtatcgagct ggctaaactt    540
ttattgcaaa agccggatgt gctttattg  gatgaaccga ccaaccacct ggacatcgag    600
tctattcaat ggttggaaga cttcctgatc aataacggaa aggcagtaat cgtcatcagt    660
cacgaccgca aattcgtaga taacatcact acccgtacca tcgaggtgac tatgggacgc    720
atttacgatt acaaagtgaa ctactccaaa tatctggaat tacgcaaaga acgtcgtgaa    780
cagcaacaga aagcctacga agaacagcag aaattcattg ctgaaaccaa agatttcatc    840
gaacgtttca aaggtaccta ttcaaaaaca ctccaagtgc aaagccgggt aaagatgctc    900
gaaaaactgg aaatactgga agtggacgaa gaagacacat cggcattgcg tctgaagttc    960
ccgccttcac cccgttcggg caactatccc gtcattatgg atggtgtagg caagagctat   1020
ggtgataaag ttgtcttccg caacgccact ctgacagtag aacgcggtga taaggtggca   1080
tttgtcggca aaaacggtga aggtaaatcg acactggtga aatgcatcat gaacgaaata   1140
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caggcatcgc ttctggatga aaacctgact gtattccaga caatcgatga tgtagccaaa   1260
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gtatcacacg accgtgactt cctggacgga ctggtgacca aggtatacga attcggaaac   1560
caaaaggtga ccgaacattt atgcggtatc tatgaattcc ttgataaaaa gaaaatggat   1620
tcgttacgtg aattggagaa atga                                          1644
```

```
<210> 2625
<211> 1422
<212> DNA
<213> B.fragilis

<400> 2625
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atgaatatgg ttcttgtccg gttcgaaagg gctcttgcca ctgcgaacac gaaccatcac    180
cacacggatc acatcgaatg cagggacaat cagcgtactg aaagcaatca cgaaagcacc    240
ttcggtatac ggggtgacat ccagattgta ctggctgtat ttgatggcaa ggaaagagag    300
cacatagccc aaagtcaggc tgcccgtatc acccataaaa atcttacggg cacgttccgc    360
actccgaag  acgttatagt aaaagaaagg gaccagcaca ccgaacgtgg caaaggcgag    420
catctgtac  gtccaaagtt ctttctgcat gaacaggaag ccgaagacaa gcagggcaac    480
gctgctcaga ccggaggcaa gaccgtcgat accgtcaatc agattgatgg cattggtgac    540
aaagacaacc agaagaaccg taaaaggcat acctatccag gcaggaaggg catacaggcc    600
gaaaagaccg tagaagttat tgatccaaag gccggccagg ggaaaaaacg aagcacagat    660
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caggtagagc aaagtcatcc cgcagaccag aaacaagcac tcgggcaaca agtacaccgc    780
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cttgcgctca ctcggcatat cgaaaagctt cttccgcaaa gagataagca ggatgcgggg    960
aatgataagc cgggcaaccg aagcagagat gacaaaagcc aatatgatga aaaggatatt   1020
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ttccttgtca ccgttattgt agatcgtcgc gttataaccc atcagaagcg aaaggcacaa   1380
acgggcttct tcctcgtcgg tggagccatg atggggatat aa                      1422
```

```
<210> 2626
<211> 570
<212> DNA
<213> B.fragilis

<400> 2626
agtattggta tttgttttcc atttgcacgt aaggtttgcc caaatatagt tacctttgca     60
```

```
gagataaaca aagaaagtat gacaaaagtt ggcttattgt ccgacacaca cagttggtgg    120
gacgaaaaat atttgcaata tttcgaaact tgtgatgaaa tctggcatgc cggagatatt    180
ggttcagtgg aggtggcaca gaagttggca gctttccgtc ctttccgtgc tgtgtacggt    240
aatattgatg gtcaggaaat tcgccggatg tttcctcaag tgaatcgttt tacggtggac    300
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aagggaagcc tattggtgca tccacccaag ttgtttatca gcggacactc gcatatatta    420
aaggtaaagt atgataagac gttggatatg cttcacatca atcccggtgc tgcagggatg    480
tccggatttc ataaagtacg taccatggtt cgttttgcca tagataatgg tgtgtttaag    540
gatttggaag tgattgaact ggccggctaa                                     570
```

<210> 2627
<211> 498
<212> DNA
<213> B.fragilis

<400> 2627
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ttattaacca taaaaaacta tcagacaatg gcagttccat acaaaaaaat cgcgagaaaa     60
gatccgcgaa aaacggatgc tatagagaaa ttttatccgc aactggtcac tttaggccaa    120
agcgcaagcc tggaaagcat tgcgtacgaa atgaaggaga aaagttcgtt atcatcggga    180
gatattaaaa gcgtactcac caattttgta gaagcgatgc gcacctccct ctataacgga    240
caatcagtca atatccggga ttttggagta ttcagccttt cggcacgcac caaagggggtg    300
gatacggaaa aagaatgtac ggccaaaaac ataatggcag tgaaaataaa ctttcgtccg    360
tcatcgagtg tacgtccgaa cctgacatcg acccgggccg gtgataaaat cgaattcatc    420
gatatcaaag ccgcactgga aggtaaagaa tctgaaaaag gtggagacgg agacattgtg    480
gatgacccga cggcataa                                                  498
```

<210> 2628
<211> 627
<212> DNA
<213> B.fragilis

<400> 2628
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tttaactaca tgcagtataa tactcaacag aaaagaatgc cgctgccgga atatggtcgc     60
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tgtgccaata ccattatcaa tatcatgggt aatatgtttc cccatttgag agatgtaccc    180
gatttcaagc ataaattatg ggatcatctg gctattatgg ccgactttaa gcttgatatc    240
gattatcctt acgagattat ccgtaaagac aatctggtaa cgaaaccgga tccgattcct    300
tatccaagta ctaagatccg ctatcgccac tatggtcgta cgttggaaat attaatcaaa    360
aaagcgtgtg aatttcagga aggggatgaa aagaagaatc tggtagccct tatctgcaat    420
cacatgaaga aagactatat ggcatggaat aaagatacgg tagacgaccg gaaaatcgcc    480
gaagacctgg ccgaattctc gggaggcaaa ttgcagatgg atgacgagat tctgcgtctg    540
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aataataatc agagaagaaa attctga                                        627
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<210> 2629
<211> 873
<212> DNA
<213> B.fragilis

<400> 2629
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tccaagctga atggtctttc cgtgttactt tcggttctga ccgtgctttt cctgtttgcc    180
gctgccatta tcactttttac tcctttacgc aactatttgc cgggatatat gaatagtgat    240
attcgtgctc aggttgtgga aaatgccttg cgggtagatt cttttgcaaca gttggtagac    300
cgtcagaata tgtatatcat gaatatacag gatatcttca gcggcaccgt gcgggtggat    360
actgtacagt caatggattc attgaccacc atgcgtgaag attcgctgat tgcccgttcc    420
gaacgtgaag aagctttccg tcgtcaatat gaagagaccg aaaaatataa tctgacctct    480
attaccgcac agcccgatgt caacggactg attttttatc gtccgacccg tggcatgatt    540
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tccgatcatt ttgatgccga aaagaaacat tttggaaccg atattgccgc caatcccaac      600
gaaagtgtat tggccacttt ggacggtaca gtcatattga gtacctatac ggccgaaacc      660
ggttacctga tcgaggtaca gcataaccag gattttgtat cagtctataa acattgcggt      720
tcgttgctga agcgtgaagg cgatactgtg aagggaggtg aagctattgc cttggttgga      780
aatagcggaa cgctcactac cggtccgcat cttcattttg aactttggca cagaggacgg      840
ccggttaatc ctgaaaaata cattgtattc taa                                   873
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<210> 2630
<211> 558
<212> DNA
<213> B.fragilis

<400> 2630

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acaaaaataa tgagccagct caatgatata tcgttagtcg cacaggtcgt ggtgttcaga      60
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ctgaacctga cctgcggcga cagcgaactg agcgacgact tggcacaaga tacgtttata      180
aaagcctaca caaacattgc aaactttaaa aatctctcaa gtttctcaac atggctttac      240
agaattgctt ataacgtatt ttatgattat attcgcagcc gaaaggaaac aacagacctg      300
gatgcccgcg aggtagacgc tgccaatagt accgaacaag taaacgtggg tgaacagatg      360
gatgtttacc aatcactcag aacgctgaaa gaaatagaac gcacctgcat cactctgttc      420
tatatggaag acgtaagtat agacaagatt gcggggataa cggggtgccc ggtaggaacg      480
gtcaaatcgc acctttcaag ggctaaagat aaattagcta tttacttaaa acaaaacggt      540
tatgacggaa acagatga                                                    558
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<210> 2631
<211> 1026
<212> DNA
<213> B.fragilis

<400> 2631

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atttataaaa tagttatgaa aatatactta gtttgtcaaa catggtcaaa tactaaaaac      60
aatcatgcag ggattttgta tttgtgtaat cagttagccg ctataaatcc agatatacag      120
gtgattgcta tgcctgagtt taaatctatt ggaagatttt ttttgtatca tatttggcat      180
ttatattatg catttttatt tacttgtca actaaagatg gcgattgcgt tatattaatg       240
gagtatcttt tatctaaatc attagatcaa agcctgatcg cttcattttt gaagagaaca      300
aaaccaaatg ttcgtattat tgctttacca catttagtaa gtaagcttat taaaaaacat      360
ttttcagaaa aagaaatagt agatcgtata tcaaaggtag attcagtatg ggtattaggc      420
agtagtttga aaacatttt atgttcatta ggtgtaccca atgataaaat tagagtgatt       480
tttcattatg ttgatactga atattataaa ggagaagtct gtaaagttcc taattttaga      540
ttgagagttg ttgtaatggg gaatatgcag cgtgactatg atttgttatt tgaggttatt      600
tcggcactac cattaattga ttttgatgtg tgtgcaggcg tttctaaggc aacagagaac      660
ttaacttctt taaaaaatgt gactttacat tcctatatgt cggaagatac gcttagaggg      720
ataatgaata aagctgatgt ttcacttaat ataatgaaag atactatagg gagtaatgtc      780
attgttactt ctatggcaat gggacttgct atggttgtaa gtgatgttgg atcaataaga      840
gattatgtgg atgagtctaa tggcctttc tgtctaacat caaaagattt tataattgct       900
ttatcccgct tagaggctga tagagatatg gtaaacgaa tgcaattaaa gtcagtgtct       960
aaagcgcaag gaatgaatgt ttctgaattt tatcgttggt ttcgtactat ggtttatgaa      1020
tcctga                                                                 1026
```

<210> 2632
<211> 906
<212> DNA
<213> B.fragilis

<400> 2632

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aaaaagaaaa tggaagaagt gaaacgtaac tcgttgcagg catggatact tgcggcccgc      60
cccaaaacac tggcaggtgc cattactccg gtaatgatag gttgtgcatt ggcttttgcc      120
gacggaaaat tcaattggat accggcattg atctgctgtt tgttcgccgg actgatgcag      180
gttgccgcca atttcatcaa cgattattt gactttctaa aagggaccga ccgcgaagat       240
```

```
cgtctcggac cggaacgtgc ctgtgcacaa ggctggattt cggcagccgc gatgaaacaa    300
ggtatcttca tcacggtagg cctggcctgc ctgatcgggt gtactctcct gttttatgca    360
ggatgggagt tgattcttat aggtgcgttg tgtgtattgt tcgccttctt atacaccaca    420
ggaccttatc cattatccta taaaggatgg ggagacgtat tggtcattgt attcttcggc    480
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gttgcatcac tggtatgcgg actgattgta gatacattac tggtagttaa caattaccgg    600
gatcgggatg ccgaccgaaa aagcggaaaa aagaccgttg tagtccgttt cggtgaatcc    660
ttcggcagat acttttattt actgctcggc attacagctg cctggctttg tttctggttt    720
ctattcaacg ggcacctata cgcaactctc ttaccccaac tttacctgtt cttccacatt    780
cggacctgga aaaaaatggt acagatacat agtggcaaaa aattaaacag catattgggc    840
gaaacttcac gcaatatgct gttaatggga atcctattgt caataggact tgttataaac    900
ggttag                                                              906
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<210> 2633
<211> 723
<212> DNA
<213> B.fragilis

<400> 2633
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ttatcaccga taatcgaaaa gataaaaatc tgcggtcatc ttttattaga taaacactcc    60
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agccatggcg caggcaccct gctgggcatc accgcaggat attttctttt ggaaaaggcg    180
ctcgccaacc ctcaccccta ttgggcaaca ggctgtgtac tggcttatct ggtggggatg    240
ctggcatcgt acatcagttc gacctggtat cacggctcca ggcccggcaa gcggaaagaa    300
cttctgcgca aatttgacca cggcgccatt tacctgcaca tagcagggac ttacactccg    360
ttcaccctgt tagtgctacg ccatgccggc ggatggggct ggggaatctt cacttttgta    420
tggctgtcgg ctattgtagg attcatatta gccttcaaaa aactgaaaga acacagcaat    480
ctcgagacga tctgttttgt agggatgggc tctgccatcc tggtggccct caaaccacta    540
atggactgcc tgtccgccat cggggcctct cccgccttct ggtggcttct cggaggagga    600
gcttcgtata tcatgggagc cgtgtttac tcgttgcgaa aaccttatat gcacgccgtt    660
ttccacctgt tttgtctagg cggaagcata ggccatatca tagccatctg gttgattctt    720
tag                                                                 723
```

<210> 2634
<211> 1107
<212> DNA
<213> B.fragilis

<400> 2634
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atccccttg tcttgaatat ccttttcatc atattggctt ttgtcatctc tgcttcggtt    60
gcccggctta tcattccccg catcctgctt atctctttgc ggaagaagct tttcgatatg    120
ccgagtgagc gcaaggttca taaacgtgcc attccccgtt tgggcggtgt ctcttttcttc    180
cccaccatcc tgctttcctc ctgtggcgtg ttcgcccttc gcatcctgat gggttatgat    240
gttcccgccc tccgtgcggt gtacttgttg cccgagtgct tgtttctggt ctgcgggatg    300
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tccggtctga gcagcgttgc cctgcttgtc ttcggcttcc tgttcatgca gaaagaactt    600
tggacgtaca gcatgctcgc ctttgccacg ttcggtgtgc tggtcccttt ctttttactat    660
aacgtcttcg gcagtgcgga acgtgcccgt aagattttta tgggtgatac gggcagcctg    720
actttgggct atgtgctctc tttccttgcc atcaaataca gccagtacaa tctggatgtc    780
accccgtata ccgaaggtgc tttcgtgatt gctttcagta cgctgattgt ccctgcattc    840
gatgtgatcc gtgtggtgat ggttcgtgtt cgcagtggca agagcccttt cgaaccggac    900
aagaaccata ttcatcataa gttcctggca atgggtttca caccaagaaa ggcgatgata    960
acgatcttgc tgatttcttg tgcgtttagt gcggtgaata ttctgtttat gccctatgtg   1020
aataatacaa taatgttaat aggagatatt actgtgtggg tgggactgaa tttatggtgg   1080
gatagaatca gggataataa atgttga                                      1107
```

<210> 2635
<211> 432
<212> DNA
<213> B.fragilis

<400> 2635

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gcaaatattg tgtggcaata tttgtatata caagaaatta tcggtacttt tgccacagaa    60
atcagaagaa gagcagtaat gaaaacggtt aatcaaatta ttggagagaa tctaaaaaaa   120
attagagagt tatccggttt tacgcaagaa caagtagccc aatctattaa gatagaacgc   180
tctacttaca gtaattatga aggaggaacc agagagattc cttataccat tttggaagat   240
atctcaaatt tattcggttg tgaacctttt atattgtttg aggacaatat tcagacgaat   300
aatgaaatta tggctacagc tttcagaatt tcaaatttag gagaaaatga tttgaaagaa   360
atagcagctt tcaaagatat cgtaaagtct tatctcaaaa tggaacgcat tgcccaaaat   420
gaagccgaat aa                                                        432
```

<210> 2636
<211> 2328
<212> DNA
<213> B.fragilis

<400> 2636

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gaaataacat acacatttat ggagacaatt tatctatgta ttattatctt cctattcgta   120
cttgccgtat tcgacttgat ggtcggtgta agtaacgatg cggtaaattt cctcaattcg   180
gctgtcggag caaaggcggc atctttttaaa acaatattgt tcattgcagg tgccggtatc   240
ttcatcggag cgtccttatc aaacggtatg atggacatcg caagacacgg catctaccaa   300
ccggaacatt tctatttcgc cgaaatcatg tgcatcctgc ttgccgtaat gctgacagac   360
gtcgttctgc tcgatgtatt caactctatg ggaatgccta cctcgaccac tgtttcaatg   420
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acactgggat ggggtgatct tatcaacacc gacaaagcct tgtctgtcat catggccatc   540
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tatttcctga taggtgccgg agccgtcatg gtatacgcct tgtgtacttc caaaaaggca   1080
catgccgtaa tcaagacctc ggtagacctc tcccgtcagg atgaaggtga agaaaacttc   1140
ggaagcacac cgatagcccg aacactggtg cgtttcagcc tcacactggc caacggtatt   1200
tcccgcatta ctccaccgag tgccaaacgc tggatagata cccgcttccg taaagacgaa   1260
gccatcattg ccgacggtgc ggcattcgac ttggttcgcg cttctgtcaa tctggtattg   1320
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actttcatgg tggccatggg tacctcactt gccgaccgtg cctggggacg tgattcagcc   1440
gtttaccgta tcaccggtgt actaagtgtc atcggcggat ggttcatcac tgccggagct   1500
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tatgcagaac agaactttga gctcaccgtg acttcattct tgcacgaaaa cctccgcgga   1800
ttgcgccggg caatgggatc taccaagttt gaaaaacaac tgatcaagca gatgaagcgc   1860
accggaaccg tagcaatgtg caaattggat aatcacaccg tacttgaaaa aggactttat   1920
tattatcagg gaaatgactt tgcaagtgaa ctggtataca gtatcagccg cctgtgcgaa   1980
ccctgtctgg aacacattga caacaattttc aatccgctgg atgctatcca aaaaggtgaa   2040
tttggagatg tagccgaaga tatcacctat ctgatccagc aatgccgcca aaaactggaa   2100
ggcaacaatt acagcaatct tgaagaagac ctgcaccggg ccaatgatct gaactcacag   2160
ctatcacacc tgaaacgcca ggaactacag cgtatccaga gccagaccgg aagtattaaa   2220
gtaagtatgg tttatctgac catgatccag gaagcacaaa acgtagtcac ttatcgatc   2280
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aacctgatga aagtaagccg taaattccag atagaaacag atatttaa   2328

<210> 2637
<211> 894
<212> DNA
<213> B.fragilis

<400> 2637
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tccgcactct actccagtgt gctgcccacc tatctgaacc tgcaaaagac caagccccgg   180
gaagaggctc tggacgaggc actggcactg gtaaacaatg tgtcgaagaa acggctgctc   240
ggcaatctgg gagaaatgaa agaacggctc ttcgatctgg aacccaatca ggaagccaac   300
ataacaggaa atgcttttct gaaattactg gaaaggaaa tgcaggaatc tgtaggggaa   360
gtctacaatt acagtggcac gtacctaagc tacagccttt cttcatcgac agacagcctc   420
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tacctgatgt tcaatgaacg ggaacttccg cagtttgccc tggtaaccat ctatctgcaa   600
ttaccccatt atgagtttcc gcatatgctg aaaggattat atctctgtct ggactataac   660
cataacccga tagcccggag aattgtcctg gtgaagcaat cggacagcac agacatagac   720
gagttcctga aaatggaagg aaagttaatc tccagatcgg aactgacccc tgaagaagag   780
atctattata attatacatg ccaggaagga gactatatca agacttgtac ggtaccctca   840
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<210> 2638
<211> 915
<212> DNA
<213> B.fragilis

<400> 2638
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agcaaagcga tggatttgtc ggcacgtatc gcaccggcat accgtgaaaa agagatggaa   180
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gaaaagaaag agtgtgcaga cgctgccact cccatcaacc aagtattggt agaaggatat   300
tacaaccaaa tcaaagctat ctccgaaaac ctccacattg cagtacctac tgactggttt   360
cagactttac tccgtatgcc ggatgtaatg acccgcaccg aaacacagga gttgagtgag   420
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cggaaacaag agggtgctgc tctggaaaag aagttccggg aaaaaatcgc gaatatccat   540
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atcaccgatg cactggagaa aacactcaat gtggactatg ataaaaaccg tctcgaacag   660
gaactgatct actacatcga gaaactcgat atcaacgagg agaaacaacg tttgggcaat   720
catctgaaat acttcatcag tacgcttgaa agtggcagcg gacaaggtaa aaagctggga   780
ttcatcgctc aggaaatggg acgggagatc aatacactcg gcagtaaatc gaaccacgct   840
gaaatgcaaa aaatcgtggt acagatgaaa gacgaactgg agcagatcaa agaacaggtg   900
ctgaatgtga tgtaa   915

<210> 2639
<211> 1131
<212> DNA
<213> B.fragilis

<400> 2639
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attgtagctc ctttggatgt aaaattccaa aaagaattgg agaagttagg gtgtaagttt   180
atctctttag atataaaagc taaaggaact aatcctttta gggatttat tttaatttt   240
cagataaaaa agatttag aaaaggttcaa cctgattttt gtttttttta cactataaaa   300
cctaatattt atgggagtat tgcagcttca atgttgcaca tcccacatat tgcaattatt   360

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acgggattag gttatacttt tattaatcat aatctaatat cgtatattgc taaatgttta    420
tataaaatag ctttggttaa ggctaaggaa gtatggtttc taaataaaga tgataaagag    480
acttttgttt caaaaaagat tgtaaaagga actaaagtgc agctgttgcc aggagaaggt    540
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gctcgtatgt tgtgggataa aggcatcgga gagtttgtag aagctgccaa atttataaag    660
caaagatatc ctgatacaag gttctgctta ttggggttta ttggagttga taatccaact    720
gcaattccta aagaacggat agaagaatgg tgctctatgg gacttgttga atacttgggg    780
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acggatgctg cgggatgtaa ggaagctgta gaagatactg taaatggcta tttatgtgaa    960
gtcaaggatg ttgagacatt agtttccgca atggagaaga ttattttaat gagtatggaa   1020
caaagagtta ccatgggaga agctgggcgt gtaaaaatgc agtgtgagtt cgatataaaa   1080
ttagtaactg agagatatat taatacttta cattattatt taggattcta g           1131
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<210> 2640
<211> 378
<212> DNA
<213> B.fragilis

<400> 2640
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tacacaaaag tgatggaact gcagatcata cagagcaaga tttacgggat acggggacag     60
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caggctgtaa agaggaacag caaacaattt cctacggatc ttatgttcca gttgaatacg    180
gaagaatggg aaatcttgaa gtcacaaatt gtgatatcaa gttggggagg tacccgtaaa    240
cttccctttg cctttaccga acaaggactg gccatgctct ccggagtgtt aaacagtgat    300
cgccatcgaa gtgaatattt ccattatgcg agcttttgta gctgtccgcc aattggtctc    360
ggctcttccg gtgaatga                                                  378
```

<210> 2641
<211> 342
<212> DNA
<213> B.fragilis

<400> 2641
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aacaaaacgg ttatgacgga aacagatgat aaactcctga agcaattctt cggcgagcaa     60
aaacaggaaa tagaagacaa cggattcagc cgccgcgtca tgcgtaacct cccgggacgg    120
aaccaccggc tggttcaggc atggggagca gcctgcgcag tagtatgcgt cattttgttc    180
ttcactttgg gaggtctgca agccaccatc agtacactgc gcgaagtatt tgtctcgatg    240
gtccagcaaa gtgccacaac aggattcgac ccgaaatccc tgtatatcgc cgctctggta    300
cttgccttct tcggagcgcg caaggcatgg tcgatggcat aa                       342
```

<210> 2642
<211> 195
<212> DNA
<213> B.fragilis

<400> 2642
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atattaacca ccagcgtgtc tttttttgttt gtcactttcc tgtatatgtg gcaggcaaag     60
ttcgcaaagt taagtgactt aacaaaatct tttctgattt atctgtgggg ctttgttaaa    120
agagagctgt tttattgcaa ttttgttctc tggagtaagc aaattgtcta cattttgttc    180
agatatgggc tctga                                                     195
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<210> 2643
<211> 456
<212> DNA
<213> B.fragilis

<400> 2643
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ggtacggatt atgctccatc cggtcagttt gagaaaatgt ttaatactga tttaggagca     60
```

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ggtgtaggaa ctggagtggc tcagattgcg ggtggacaag ccgatggata taacttcttc    120
cctcagcaag atctttcttc tcctaccaca aaggaagatg ttatgaagaa atcgatccat    180
gttatcatgg aagttgagtt tgataagaaa gttggtggct caggtccgga aaccggctgg    240
cttaatgtgg ttgctttaaa ggataataca gctactaact atattacaga ctttgaagcc    300
ggtaaggtat actttattaa ccttgccgat atcaaggata ttatggatgt tccggttcct    360
cctgtaactc cggaccccga tccggaaact gtttctgtag atcttactgt aagcataggt    420
cagtggactg tagttcaggt taagcctgaa gtttaa                              456
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<210> 2644
<211> 621
<212> DNA
<213> B.fragilis

<400> 2644

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ttcgctgcat gtagcaacga tgagaaaatt acggagagta ctcctaagac ggtagcttta    120
actgtgaagc tgccagagtt cggcggagct tcgagtagag ctattgatcc tgagactact    180
acggggaata aagtgactat taatggacct gtaaaaatta tcgcacgtgt ttcacaaggt    240
ggtgcaatta ccaatacaat tagtgaaaac attacagctg gttcaatgtc cactattaca    300
gtttctggtg cggcacagtg gattgaggta gaggctaatg gtgataatag tactgaaact    360
gataatgtaa acactcgtca aggatcagct acatcaagta aagtgcgttt gtttggagga    420
gcaacgataa atccaggaag tggtggaaat gcaacttgca ctccgacaat aaaccctgat    480
atggcgcgtg tggaagtaaa gggtagtctg gccggcccct ggacacatct gaatgattta    540
aagataaagg ggatttacat taataatgtt aagcttacca gaggtgcttc ttcattgacc    600
agaattgtgt cggctgctta g                                              621
```

<210> 2645
<211> 804
<212> DNA
<213> B.fragilis

<400> 2645

```
tgtatgacaa aaagaacttg ccaatttccg aagcacacat gccttcgaga aatcaacttt     60
ttgaagatag caggtatcag tctcctgcta ttctgcacga catcacaaat tgccgtagca    120
gacagttatg aaaaaaatgc tgtcacagcc acacagcaga gtaaaacaga gaaaataaca    180
ggtaaaatag tcgatgagag cggagaggcc atcatcggtg cctcggtaaa agtacaagga    240
agcactatcg gtaccatcac caatatggaa ggagagttta tgataccgaa tgtccccaac    300
aaggccgtac tcgaaatcag ctacatcgga tacaagccct tagaagtcgc tgtcggaaaa    360
tccaaagatt tacgcatcac gatggaagaa gacactaaaa cgctggatga agtcatcgta    420
gtaggttacg gtacgacttc taaacgcaaa acaaccgccg ccattgccag tgtcaataca    480
gaagacatta tcaaagcacc gacggcaaac atcacccaaa gcctggcagg acgtgctccc    540
ggtctgttgg tcacaaccag cggaggcggt ctgaataact tttccagtgt ctctatccgt    600
ggaggggggca ctccgcttta tgtaatagac gatgtgattt ccgaagagcg ggatttccgc    660
aatctgaatg ctgaagacat cgatcagatc acaatcctga aggacgccgc ttctaccgcc    720
gtttacggag cacgtgccgc caacggtatc gtaatgatag taaccaagca agggcaaagc    780
aggaaaatg agcgtcaatt ataa                                            804
```

<210> 2646
<211> 1623
<212> DNA
<213> B.fragilis

<400> 2646

```
ttaattcaaa agaaaatggc aaatttagat ttaagcaagt acgtattac aggtgtaact     60
gaaatcctgc acaacccgtc ttacgatgtt ttgttcgctg aagaaacaaa accaggtctg    120
gaaggctttg aaaaaggtca agtaacagaa ttgggtgctg taaacgtaat gactggcgtt    180
tacactggcc gttctcctaa agataaattc ttcgttaaga atgaagcttc tgaaaattca    240
gtatggtgga cttctgaaga atacaagaac gacaacaaac cttgttcaga gaagcttgg    300
gctgacctga aagctaaagc cgttaaagaa ctttctaaca aacgcctgtt cgttgttgat    360
```

```
actttctgtg gtgctaacga aggtactcgc atgaaagtac gtttcatcat ggaagtagct    420
tggcaggcac acttcgtaac taacatgttc atccgcccga cagctgaaga acttgctaac    480
tacggagaac ctgatttcgt atgcttcaac gcttctaaag caaaagttga taactacaaa    540
gaactgggtc tgaactcaga aactgctaca gttttcaacc tgaagactaa agaacaagtt    600
atcctgaata cttggtacgg tggtgaaatg aagaaaggta tgttctcaat catgaactac    660
atgaacccgc ttcgtggcat cgcttctatg cactgctctg ctaacacaga tatggaagga    720
actagctctg ctatcttctt cggtttgtct ggtacaggta aaactacttt gtctactgac    780
ccgaaacgta aattgatcgg tgacgacgaa cacggatggg acaacgaagg tgtattcaac    840
tacgaaggtg gttgctacgc taaggttatc aacctggata agaaagcga accggatatc     900
ttcaacgcta tcaaacgtga cgctctgttg gagaacgtaa cagtagctgc tgatggcaaa    960
atcaatttcg ctgacaaatc agtaacagaa aacactcgtg tttcttatcc tatctaccac   1020
atcgaaaaca tcgttaaacc ggtgtctaaa ggtcctcacg ctaaacaagt tatcttcttg   1080
tcagctgatg ccttcggtgt attgcctccg gtatctatct tgaacccgga acaagctcag   1140
tactacttcc tgtctggatt tacagctaaa ttggctggta cagaacgtgg tatcactgaa   1200
ccgactccga cattctctgc ttgcttcggt gctgcattct tatcattgca cccaactaaa   1260
tatgcagaag aattggttaa gaagatggaa atgaccggtg ctaaagcata cttggttaac   1320
acaggatgga acggaagcgg caaacgtatt tctatcaaag atactcgtgg tatcatcgac   1380
gctatccttg acggttctat cgacaaagct cctactaagg ttattccttt cttcgacttt   1440
gttgttccta cagaacttcc gggtgttgat ccgaagatcc ttgatcctcg tgatacttac   1500
gctgatcctg cacagtggaa tgaaaaagca aaagaccttg ccggtcgctt catcaagaac   1560
ttcgctaagt tcactggaaa cgaagctggt aagaagttgg ttgctgctgg tccgaaactc   1620
taa                                                                  1623
                                                                     1623
```

<210> 2647
<211> 1617
<212> DNA
<213> B.fragilis

<400> 2647
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agacaggaaa atatcatgaa taataaaaga aaaaatatga gtatatatat aacagtcctg     60
ttatggattt tgattccatt attgataatt aacgggctta ttttcttaac tagtgatatg    120
ctcagtgttt ttgtcggggg gatgttatcc ttaaagttgc tatgttatag ccttttcttt    180
tcatatagtt tcttgcttgg atataaggca caaacaggag gtggtattat tattcttgta    240
cttttgctga ttttagggct tttttttatgg caatcattta ttagttgggt tgaacccggg    300
acgttgtggc gggaagcagt gggtgccatt atattcttgg gagtaattct ttctgtcggg    360
attttatgcc gctatggcat taaagccggt ggacttcttc gtttaagttc gattttggca    420
tttgccatcg tagcgtttgt ttatattaca gtctgtttgt cgacagtatg tggcgcttat    480
tctcctatac ctgaagaact cttctggaaa gatgcgtatc cggagaaggg gaaaaatggt    540
actgtctttt ttcatcattc gaaactgcat ataaatccct tcgattcgag agtaataggt    600
gtttttcgtt tcaatgataa aaaagagtat gtcggttata gtgccagcat gtatgagagt    660
catgaaatag tcaattcggg atttaaagtg gatgacacga taaaagcttc aacatgtgac    720
tttatacata gtagttatga gccattattg agtaacttta tgtccgattg ccaagatgca    780
ctctatatga aagaaggaga ttattgcgtg tttctatata ctgaaaaagg agcgctgtac    840
agaaaagagt ttgattatca tcgaaatggg attgtgaaac aagcacgtac ttatacgtat    900
gaccggaaaa ccggatttca tattgaaaga gagaaacaa tagaatttga cgaactaggt     960
ttctgcgata aatcaggccg ggtaagatgg aatataaaag atttccatca aacagataca   1020
gtgatagata tggaatctcg ttatgggcag gcatacgatc cggcggcaag aaatagaaaa   1080
tacgctttac cccaacaact cataatagac tcttttgtta ctgttgaaag taagactgct   1140
tctcccgatt cattgagaaa atatagtagc ctggattttc cgctggatga atactataaa   1200
ttaggtggtg tgaatgggca tgcaatatcg gtatatgtaa atacggacga atataaatgg   1260
cgtaagatat atttgtctga ttttactcag ttagggaacg tggagcaaat gtattctttt   1320
atagatgctt tggaattgag ttgtttggat accgggatgt gggtgagaat tggcgagcaa   1380
tcaatggttg tgggtgaaga cgatgaatgt tgcagctttg tactgaaaga agttgtcaaa   1440
ggtggcaagg ctctggcatt gtatttcttt gatgactatg cggttacgac agattcgaga   1500
ttctgctttt attttaatcc ctctattcat aaagacatgg agatacagaa aagagctggg   1560
gcggcttgga atgaaatgaa aaagatcttt atggaatata aagaaaaaga gaattaa       1617
```

<210> 2648
<211> 183

<212> DNA
<213> B.fragilis

<400> 2648

```
aaaagagccc tattcctgaa agatatcatc catttgctct tcaaagacat aattatcatt    60
ctgataagta cctctcgctt cgagatcaaa agaaaaaatc aaccgaacga tacaattccc   120
cagtacggag acgaaataaa tcatacaaag aatgaaattt gcgtaaagaa tggaattatt   180
taa                                                                183
```

<210> 2649
<211> 1914
<212> DNA
<213> B.fragilis

<400> 2649

```
tattcaaaga acacactaac accggttcat gttaatccta aatttaaata tataaataga    60
attatggcag acgaaatgat ggttaaagaa ttggaagaag tggttgtccg cttctccggc   120
gattccggcg acggtatgca gttggccggc aacatcttct cgaacgtgtc ggctacggtt   180
ggaaatgaca tctgtacatt tcccgattat ccggcagata tccgtgctcc gcaagggtca   240
ctgacgggcg tatcaggttt tcaggtacac gtcggtgcaa gtaagatatt cactccgggt   300
gatcattgcc acgtattggt agctatgaat cccgccgcac tgaaaacaca aattaaattc   360
tgcaaaccgc aggggctggt catcacagat tccgactctt tcggagaaaa agacttggaa   420
aaagcacagt tcaagacagg caatcctttc gaagaaatgg gaatcacaca gcaagtgctt   480
gaagtcccca tctcgtcgat gtgtaaagaa agcctcaaag attcagggct ggacaacaaa   540
gccatgttgc gttgcaaaaa catgttcgct ctcggtttag tatgctggtt attcaaccgc   600
aacctgtctg ctgccgaaaa aatgctgaac gagaaattcg caaaaaaacc ggaaattgcc   660
gctgccaaca tcaaagtgct aaatgacggc tacaactatg gagccaacac gcatgcctct   720
acttccactt acaagattga aagtaaaacg ccgaaagccg caggactcta taccgatatt   780
aatggtaaca aagccacttc atacggtttg atcgccgctg ccgaaaaagc gggattggaa   840
ctttatctgg gatcttaccc catcactccg gctaccgata tcctgcacga gctcgccaaa   900
cataaatcgc tgggcgtgaa aaccgttcaa tgtgaagatg aaatcgccgg atgcgcttca   960
gctgtaggtg cagcatttgc aggcgatctg ctgtaacga ctacttcagg accgggtgtc  1020
tgcctgaaaa gtgaagccat gaacctggct gtcattgccg aattaccact ggttgtggtc  1080
aacgtacagc gtggaggccc ttctaccggt atgccgacca agtcggaaca aacagacctg  1140
ttgcaagccc tttatggacg taacggtgaa agtccgatgc ctgtcattgc agctacttca  1200
cccaccaact gttttgatgc tgcttatatg gctgctaaaa tagctcttga acacatgact  1260
ccggtagtac tgctgaccga tgcctttatc gcaacggtt ctgccgcatg gaaactaccc  1320
aacatggatg agtacccggc tataaatccg ccgtatgtaa caccggatat gattggtaca  1380
tggaccccgt tccaacgtaa cgaaaagacc ggcgtacgct attgggccgt tcccgggacc  1440
gaaggattca tgcatcgtat aggtgggctc gagaagagca gtgaaacagg cgttatttcc  1500
acagaaccgg aaaatcacca gaaaatgaca cttctgcgtc aggccaaagt cgacaagata  1560
gccgacagta ttcctgaaca ggaagtacaa ggcgatgctg atgccgacct gctggtagta  1620
ggctggggtg gtacttacgg ccatctttat tcggctgtag agcatatgcg caaaaatgga  1680
aagaaagtgg cactcgctca cttccagtac atcaacccgc tgcctaagaa cacagccgaa  1740
atactgaaaa agtataaaaa gattgtagta gccgaacaga acttgggaca attcgcagga  1800
tatctgcgca tgaaagtacc cggactgaat atcagccagt tcaaccaggt aaaaggccag  1860
ccgttcgtta cgagagaact tgtagaagca ttcactaaat tattggagga ataa        1914
```

<210> 2650
<211> 669
<212> DNA
<213> B.fragilis

<400> 2650

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aacgcagttg aaaagatgaa gattattaat ttaagtgaga cagactcaat attgaatcag    60
tatgtatcag agataaggaa cgttgaggtt cagaacgacc gtttgcgttt tcgtcgcaac   120
attgaacgta tcggcgaggt aatggcttat gaaatgagca agacgtttgc ttattcggtg   180
aaggagatac aaactccatt ggggatagca cctgtcagaa caccggacaa tccattggtt   240
attagtacga ttcttcgtgc cgggttacct ttccaccaag gattcctgag ctatttcgat   300
```

```
tatgccgaga acgcttttgt ttctgcttat cgtaagtaca aggatacgtt gaaattcgac   360
atacatattg aatacatcgc ttcaccgcgt atcgacggga aaactcttat cattacagat   420
ccgatgcttg ccaccggcgg aagtatggaa ctgagttatc aggccatgtt gacgaaggga   480
catccgtctg aaattcatgt tgcttcgatt attgccagcc aaagggctgt cgatcatata   540
gccagtattc tgccggagga taaaactaca atttggtgtg cagctatcga tcctgagata   600
aatgaacact cttatattgt tcccggattg ggtgatgcgg gtgatcttgc ttttggcgag   660
aaagaataa                                                          669
```

<210> 2651
<211> 1014
<212> DNA
<213> B.fragilis

<400> 2651
```
gagatgagcg aaacagtata tacagcaaaa gattataaat caggtcagcc tcgctggtgt    60
ccgggatgcg gtgaccatgc tttcctgaac tccttgcaca aggctatggc cgaactggga   120
gtagctccgc acaacattgc cgtgatctcc ggtatcggct gttcttcccg cctaccttat   180
tatgtcaaca catacggctt ccacaccatc cacgggcgtg ccgccgctgt tgcgacaggt   240
gccaaggtag ctaatccgga tttaaccatc tggcaaatct ccggtgacgg tgatggtctg   300
gccattggcg gtaatcattt catccatgcg gtacgccgta acatcgactt gaatatgatc   360
ttattgaaca accgcatcta cgggttgacc aaaggtcagt attccccgac ttccgaccgt   420
ggattcgtca gcaaatcatc tccttacggc actgtagaag atccattcca cccggcagaa   480
ctctgtttcg gcgcgcgtgg ccgtttcttc gcacgttgtg ttgcggtaga cggaccggct   540
tctgtcgaag tattgaaagc cgcagccaac cataaaggag catcggttgt ggaagttctg   600
caaaactgcg tcatctttaa tgacggcaca cacgaatcgg tcgcaacgaa agaaggacgt   660
tctaaaaacg caatctatct ggaacacggc aaaccgatgt tattcggcga aaacaaagag   720
ttcggcctga tgcaggaagg tttcggcttg aaagtggtaa aattaggtga gaacggcgtg   780
acagaaaaag acattcttat ccacaatgct cacagcatgg ataatacgtt gcaactgaaa   840
ctggcattaa tggaaggacc ggatttccca atcgcactcg gtgtgatccg tgatgtggaa   900
gctcctacct ataacgatgc agtcgccgag cagattgatg aagtgaaagc caaaaagaag   960
tatcataact ccaggaatt gctgatgacc aatgaaacat gggaagtaaa ataa         1014
```

<210> 2652
<211> 183
<212> DNA
<213> B.fragilis

<400> 2652
```
cagggcaaag ataatgcacc tgcaaaaaga atcacttatc caaagcaacc atttacttca    60
cctttttccga gattatattt taagattctg attatcaata tgcttgtctt tgagctgcct   120
gaccaactct cttggggaat taccgaaatt ctttttgcag tatttattga aactggccgc   180
tga                                                                 183
```

<210> 2653
<211> 1248
<212> DNA
<213> B.fragilis

<400> 2653
```
tttattttgg agaagaaaat tggaaagtta agtatcaggg tgttgttgaa tacccatcgt    60
agaaatgatt gtgagattta tcctctgatt atccgtgtgg tttatcacag gcgtaaaagt   120
gagtattctc ttgggtggaa gattcatact tctaatttct ctgcagatcg tgagcgtgtt   180
gtctattcat caaccggtaa tcttaagcgc aaggatctgg gacttatcaa tgatgccatt   240
tctcaggagc gtgaacgatt gctgaagatt tttgcttttc ttcaacagaa tatgccgggg   300
ttcagcttat ctcagttgat ggataagtat cgtatggagc gcaatttgcg ttatgtcgat   360
gctttttattg tgcgtgagat agagaggctt cggcaggagg ggcgttctgg tactgccggc   420
ctgtacctta gcggattgta ctctttacga cgttttttgc gtggtcagaa gattacgttt   480
cgcgagttga cttattgttt tcttacggat tatattcatt ttctacgtat gcgcggtatc   540
tctgaaaata ctgtgaatat gtatattcgc aatctccgcg ctgtctataa caaagcccaa   600
```

```
aagcagggga taaatatggg ttgtgagtct cccttccggg agcttaagct tcaaactcag    660
gagactgcga agcgtgcgtt gtgtaagcat gatattgccc gtatagtatc tgttgatctt    720
tcctccgaac ctttattgga tcgtgcccgg gatctttta tgtttagttt ctatgcccgt     780
ggtatgcctt ttgtcgatat tgtctttctt aaacatgact cgataattaa tggaatcatt    840
tattatgagc gtaataaaac ggggcaacgc atgcaagtcc gtgtgattcc tcctctcgca    900
gctctgattg agaagtatcg gagttcttat ccgtatgtat tgccgtatat aacgtctttt    960
tcggaccgta cgtcttatat gcagtatcgt tatgcattgg gtaatgttaa ccgcctactc    1020
aaacggttgg gcaggcgatt gcacctgcct cttgtactga ctacctatgt tgcccgccat    1080
agctgggcga ctattgccaa agaggaggga ttttctatcg catctatcag cgaagggctt    1140
gggcatactt ctgaggcaac gacccagatt tatcttcagt cttttaatag tgaggtcatt    1200
gataagatta acgagcaggt cgtagcctcc ataggaaggc atatctga                 1248
```

<210> 2654
<211> 354
<212> DNA
<213> B.fragilis

<400> 2654
```
gcagaggggg aaagaaaaga gaacgaaggt aactgtttaa cagtgacctg cctgatcttt     60
atatcttcat ccgtatttt tcgtatctcc agactcgcct ttgaagcaat gcgctccaac      120
tcaaccgaga acgctgaatt ccaggttaat ccttcatcca cactgacttc ccctgtgacc     180
ggagttgaag aggctgcatt tcttatccgg atatccagat gcttgcatac cacaaactct     240
gccgtatcta caggtagagt aaccggtaca cttttaattt ctgataaaga tggctctccg     300
gttaatgcgg aattcatgcc cgtcgtttca ttaccgatca caaacaaatc gtaa           354
```

<210> 2655
<211> 903
<212> DNA
<213> B.fragilis

<400> 2655
```
tttacaaaac taaaaatgaa actacattac aaaaaagagc acatctcatg caccaattat    60
aaaagtgaat cgtatgaggg attcgggatt ggaacgctta caagcggcag taacttcaat    120
agtcagacct tatctgttaa aactaatttc ctgatcttca ttcttgaagg tgaagtggag    180
attattccca aagaaggcaa aataaaaagg gtaatagccc aggaattctt tttcatctcg    240
gcattatcca cttacgagat acaggtacga gtccccggac gctacattta tatgagcttc    300
ctatacaatg acattaaact atgtgagaaa cacatgttag agagctatct aaaagaagtg    360
agagaagcat ctgaagaggt cggaatacta tcggtacgcc acccgctgaa cttatttctg    420
gaattaatgg atgcctacct gagagccgga gtcaactgta agcatttgca ctccattaag    480
gagaaagaac tctttattat tttgagaaca agctatagca aacaggaaat agtaaattta    540
tttcatgaaa tcataggaac gaatatgagc ttcaaagctg ctgtttttact gcatgttgat    600
cgcgtgaaca atcgtgagga attagcacag gcaatgggaa tgagtattac cgatcttgcc    660
agaaagttca aggtagaatt tggcgaatca gtatattcat ggttgctgaa acaaaaaaac    720
aagaaaatta tttatcggtt ggcgcaaccc ggagccagtg taaaagagat tgtgtatgaa    780
ttcggcttct cttcagcggc cagtttcaat aaatactgca aaaagaattt cggtaattcc    840
ccaagagagt tggtcaggca gctcaaagac aagcatattg ataatcagaa tcttaaaata    900
taa                                                                   903
```

<210> 2656
<211> 786
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (83),(131),(164),(239),(248)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2656

```
atgtgtatgc gttcgactcc ctcggcattt atcggcaaaa atgtttcggg acaaaggagc    60
acatttgaag aaatggctac cgnaatgcct attgacttc  ctgaggggaa atggaccttt   120
ttatgcttgg naggtaaggt tggtgattac gagattggca tttntagaca ggtatttcct   180
cacaagttta gtccggctgt ctctccgggg attaccactc tttcggattt tcgtgtaana   240
gcgtattntg agcagaaaga aaatttggaa tactcacttg gtgagttgtt ctttgggcgc   300
ctggactcca tggagatcac agctgataac ggtgggacag gtgtagtaga cttaatgaaa   360
aacacgaata agatagaagt ccgtgtgaag ggaatcgctg atggttcatc agcccgtatc   420
acctctgata acggacgctt taactcagaa aatgttacgc cggccgatgc cggtacgatt   480
atatatgttc cttattatag cgcatctcaa acggatgata cccgtgtttt ccagtttgat   540
gtattgcgcc tgtatactga cgggcatctg ttccttaaat tgctgaatcc cgatggaaca   600
gatgttattc cgggatttac aaaagatttg atcaatgcta ttatgtcctc tcccgcatac   660
catactcagg aagatttgga tagagaggat acctatctga ttgaattggt gctttctaaa   720
gacggagtca ttgtctcttt gcgggtaaat ggctgggaaa ctgtcagtac tactccggag   780
gtctga                                                             786
```

<210> 2657
<211> 246
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (144)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2657

```
aatcgacagc ggacgctttt gtattgcaaa cctacaacaa tgtcctcccc tctatcacga    60
tatccgcacg gaggagcaat ggaccttgaa ttcgtcatgc gccagactgc ccgaatgagc   120
cagagatcta tgaaccctga cttntcatgg ggattcacca gtttggaccc ttcgccgttg   180
aacctgttaa tcaaaaaatc caaggttttt ccgggtttgc ccgttccgtt taaaaaacat   240
tggtag                                                             246
```

<210> 2658
<211> 834
<212> DNA
<213> B.fragilis

<400> 2658

```
agtatagtca gagtggaaaa aagattttct aagatatttt caatagtcgt ttacgcattc    60
ttagctttat ggatgggagc atgtaagagt gaacctgtcc gcttgccgga actgagcgga   120
caccggggag cggactgtat tgctccggag aatacgctgg cttcggcgga ttcatgtata   180
aagtataaga ttgacttcat ggaatgtgat atttgtatca gtaaggacag cgtattctat   240
ttattgcatg attctacctt ggatcgtacg acgaatggaa ccgggctgat tagagagtgg   300
ctttcggcag acatcgatac attggatgca ggttcatggt ttggcgaaaa gttcagcgga   360
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acgctcgatt atcgtacggg agactttgga cagttgctgg atctggttcg cagggaagga   480
atgttagaga attgtacatt tactttctgg tcggacaagg aggcaaaagc ttttcgccaa   540
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gttatagctg aaataaatcc caatattgcg gttattcgga tcgattcact ggataagctc   660
ctggtggaac ggtgccataa gaaaggattg aaggtgcttg cattggcact gggtactgac   720
gatgtagaag agtctgaccg gaaagctatt gaactcgggg tggatgtgct ggccacggac   780
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<210> 2659
<211> 189
<212> DNA
<213> B.fragilis

<400> 2659

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ttgtattctg ggaaattaaa taattccatt ctttacgcaa atttcattct ttgtatgatt    60
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gcgagaggta cttatcagaa tgataattat gtctttgaag agcaaatgga tgatatcttt   180
caggaatag                                                           189
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<210> 2660
<211> 2397
<212> DNA
<213> B.fragilis

<400> 2660

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agtatgacca atgacggatt ggcaccggcc tatacggacg atgaactgga actgttccgc   180
aacggatcag atccacgcag atatcctaat acggactggc aaaaactctg tttgaagaac   240
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ttactgactt tcagcaaagc gaataagttc gacatcgacc cggaaatcgg cgacggcaac  2340
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<210> 2661
<211> 1740
<212> DNA
<213> B.fragilis

<400> 2661

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ggttcaaaat ctcctttgac tatgcgtttg tttatgcagg ctggcggagc tactgtcgag    180
ctgccgaata cttcttctgc ggatagcgtt tttacagtct ccgaaactgt cggtttccgg    240
gatagtgtgg ttgttgacaa tcccgtttct tcggttgatt ctcttgaaga agatatctgg    300
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gacagttgct ggaagttgac aatgtacccg gaactgatag aaaaagactc ttctgttttg    480
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agtcttcctc cggcggatac attgacattc gtaattgcgt ctgttgccga cttggctgat   1320
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catgcaaagt cggaagattt gttaaagcaa ctgcctcaaa cagctgcggt tgaatatctc   1560
cgagcgattg tgaatgtgcg cttggaagac taccaagcgg cagcagaact tctgttggag   1620
gcatgccgta aagatactaa atatgtatac cgtacagaaa tggactctga tattgcagca   1680
cttcttccca gatttatggg cctgaaggag gagctggagc gaatagcttc tgaagagtaa   1740
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<210> 2662
<211> 570
<212> DNA
<213> B.fragilis
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<400> 2662
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tggggtacta ccaatatgaa tcttgagttc gggctgaagt tttcccatcg ttggaccttc    180
cactttcctc ttcaatataa tcccttctct tttggagatg cgaggcttcg caatttgtct    240
gcttctcccg gagtgcgtta ttggatccgt gaatcttatg ggcgttctta tttccttgga    300
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gaaggttacg gttttggagg tggactttct ttggggtaca atcgtcctct ttctcctcat    420
tggaatttag agtttgaggc aggtcttggg gtcttgtgga cccattatga taaatatgtt    480
tgtaaggcat gcgggcagaa agtggctact tttaagggag cacgtctgat tccgaccaag    540
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<210> 2663
<211> 1179
<212> DNA
<213> B.fragilis
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<400> 2663
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tcgggagaca atccggtaga agtagaactt atgactcgta atgtcacttt aggaggaagt    180
gaatccggag tgactctgaa gcgcttgcgt gtaattgctg tggcgaaaaa cagtggaaag    240
gtggaaatga atcgccgtgc cgatttaagt gatccttcat catccggttt agagcataca    300
gggggagtgt ttaaactcta tcttcgtccg ggtgattacg atttgtttgt gatcggtaat    360
gaaacgacgg gcatgaattc cgcattaacc ggagagccat ctttatcaga aattaaaagt    420
```

```
gtaccggtta ctctacctgt agatacggca gagtttgtgg tatgcaagca tctggatatc      480
cggataagaa atgcagcctc ttcaactccg gtcacagggg aagtcagtgt ggatgaagga      540
ttaacctgga attcagcgtt ctcggttgag ttggagcgca ttgcttcaaa ggcgagtctg      600
gagatacgaa aaaatacgga tgaagatata aagatcaggc aggtcactgt taaacagtta      660
ccttcgttct cttttctttc ccctctgct tatccgcttt ccggcgggct tacggttact       720
gatacgcgtt cgttttctac acctgtttct atcgccggag agaaagatgt tccctcagga      780
tatccgtata catctgttgt acagggaaag aatagcttta tcttgccgga gtacatttgg      840
gataatacgg cagggaaggg gcgtgcttct tttatggaaa tagaggctga acgtaatgga      900
gcgtcagaaa catggcaaat attattggga aagagtacgg atattccggc tgactactca      960
cttgggcgta acacttacta tcgatatatg ctgaccgtga atccgctgaa tgtcgatgta     1020
aatgtaagtg tagaaccatg gcagaatacg actgcttatg atacgattcc cggagcaaag     1080
atcgttttct cacgggtcaa tgtcggttat tcgtatgctt ctgagagtgt tgttacgttt     1140
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```

<210> 2664
<211> 273
<212> DNA
<213> B.fragilis

<400> 2664
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tgttcacgga tgtttatgtt acagccacgt tatcttttgc atacgggtga aggcgatcgt      180
tttggagaag ctgtccacca tatagatgtg tatgcgttcg actccctcgg catttatcgg      240
caaaaatgtt tcgggacaaa ggagcacatt tga                                  273
```

<210> 2665
<211> 201
<212> DNA
<213> B.fragilis

<400> 2665
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tccgggtatt ccggcatata cagaatagaa acaatgcgct tcccttctct gataattgaa       60
aaggcgtctt actcttttgc gcatatcatt ggggggcttg tcgtattcat aaagaccgaa      120
tgtggagtaa tcttggattt tgacagtact ccttttttac aggatgctat catgcagaat      180
cggattttc cgcctcgata a                                               201
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<210> 2666
<211> 1332
<212> DNA
<213> B.fragilis

<400> 2666
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tcactcgtta aacccataga cagtatgatt aaactttatt tcaaacaagc ctggcaactg       60
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atgaccatga gcttggtgat catctattac atcaagatgg caccggtcta ccccgaagag      180
aaccggaacc gaatcctggt gagtaaaggg atgactgcaa tagagcaagg caatgaaaat      240
aactggttca gttcgaatgt atcttttcag acggtgaaac gcttctatta tccgctgaag      300
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tccttcatta ctcctgctac gtatgccgac atctggttgc cgctgacggt agatgctgag      660
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aaaagcactt tttatgaata ttgtaattcg gcacccgatt ggggaaaact gatacggacg      900
tatgggacta tcctgctggc tttgcttttt gttcctgcac tgaatctggc aggaatgatc      960
```

```
gcttcgcgga tgaaacgtca gctttctgaa atgggtatac gtaaggcttt cggggcctcc      1020
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ttgttgggct tattactttc gtatctgatt gtctattgcg ggcgtaattg gttaccagac      1140
ctgctaagtg catattcgga tgtgataccc gagggagttg acagtttctt aactcccggt      1200
atgttgctga atcctgtggt gataggcatt acatttctgg tcagtttgat actgaatgtg      1260
ctgtcggctt tgattccggc cctgcatgct ttgaagaaag atattgtata ttcgcttaac      1320
gataaaagat aa                                                          1332
```

<210> 2667
<211> 1278
<212> DNA
<213> B.fragilis

<400> 2667

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tacgtattat tgtccgacaa ggcattgccc gacaattacg acctcactga tacttacttg       180
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tctgatgtga ctgtcagctt tttcaattca tatccgcaaa gcggtacctg gaatggagga       360
cagctttcca atgatacgat ctttgcaaat atacagcaga tgacatttct ttccggcacc       420
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gcggaaggag aacagggaat ctatctgact cctgacgttg ccgaaaaact gttcggtgaa       540
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gaaatgggaa tttacatgac gatggggtct actcgccatc ggttgatccg gcaatttctt      1020
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gtttcgtttg tggctactta catcccggtg tcgaaagctg cccggatgaa tcctgcggat      1260
gctttgcggg acgagtaa                                                    1278
```

<210> 2668
<211> 342
<212> DNA
<213> B.fragilis

<400> 2668

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ttgagagtga aatgtgtggg aaacactgtg gctttcgaca agtcgactac cgttaccaaa        60
gggtgcaatg tctcgagacc atacatttta ttatactggt ctaccgagtt gagcttgatt       120
acttcttcca taggacatct ggttgtttat tctgtgacaa atgtaagaat tttcattata       180
tgtagtatgg gtgaggagat taaaacagga ataggggtaa aaatatccgt aattagggtt       240
gtatcgtcgg catttttcct gccaatgtac ccgagattaa tagaactttt agttcaccaa       300
cgggcagtat gttcattttc ggacacccaa ctctccgctt aa                         342
```

<210> 2669
<211> 915
<212> DNA
<213> B.fragilis

<400> 2669

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acaaccagat gtcctatgga agaagtaatc aagctcaact cggtagacca gtataataaa        60
atgtatggtc tcgagacatt gcaccctttg gtaacggtag tcgacttgtc gaaagccaca       120
gtgtttccca cacatttcac tctcaattat ggattatacg ctctgttcct gaaacagaca       180
```

```
aagtgtggcg atctgcgtta cggacggcaa atgtatgact atcaggaagg cacagtgaca    240
agtttcgcac cgggacaagt agtcgaagta aagctaaacg atggtgtacg cccgatgtca    300
cacggaatac ttttccatcc cgaccttatc cgcggcacgt ctttgggaca ggaaatcaag    360
cactactcgt tcttttcata cgcatcgaat gaagccctgc atctttcgga cgacgagaaa    420
aagatttttc aggattgcct tgacaaggta caacaggagt tgtcccgtcc gatagacaag    480
catagcaagc gcctgatcgc aagaaatatc gaattgttat tggattattg catgcgtttc    540
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gacctactcg atgtctattt ccaaagcgaa caatcgccaa acgaaaaatt gcccacagtt    660
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gaaaccggaa agaccgctca agaatacatt cagggaaaaa taatcaatat agccaaagaa    780
aggatattgg cttcggaaaa aactgtcagt gaaatcgctt atgaactggg attccaatat    840
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```

```
<210> 2670
<211> 1290
<212> DNA
<213> B.fragilis
```

```
<400> 2670
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cgtaaagcca atttcgaacg gttgctcaat aaactcaaac actacgaggg agtcaagtat    300
actactttca tcttgaacga acagtatcct tcggcacttt ccataagcaa cggcaacacg    360
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gatttcctgt ggaccgaatc ggtgctgaca gcggatatct cacaacggct gaaagacgga    540
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gcttactgga tcaaccactt cggcctgcat tttacggcag ttactctgat cgtatatctc   1200
ttgctgctga ttgtagtttc catcggaatc tggatgccgg cacataaact tagccgtatc   1260
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```

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<210> 2671
<211> 1284
<212> DNA
<213> B.fragilis
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<400> 2671
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ttgctgagtg ttattgccat tattggtacg gcactggcca ttgccatgat aatgtgcatt    120
gtacttatct atcaggcaag aacagccaac tatgaaccgg agataaatcg cgaccgtacc    180
ttatcgatcg agatgacgat tgctcagaaa attgatgata aaggatggaa tatggggaat    240
cagttatcac tgcgtaccat taaagaatgt ttctatccaa tgactacggc ggaagcggtg    300
agcgccgtgc actacagcat gacgtctttg gcggctactc ccgatggaac ccgggaagtg    360
aagtgtgcgg tcagttatac ggatgataat ttttggcgtg tatttggttt ccgctttctg    420
catggtaaac cttacgggca ggaatttgtg tccggcgaga agaaactggt agtgacccgc    480
tcgttggctc gtcgtctgtt tggcatcgac aatgcggtgg acgtatcat ttcattagga    540
tttgtcgatt ataccgtctg cggagtagtg gccgatgtgt cggtattggc cgaggctgct    600
```

```
tatgccgagg cttgggctcc ttatacggca ttgccggatt atgaacgtag tgtcagcgag    660
ggtctgcaag gaggatattc atgttatatc ctggtaccca aggggggccga tccggatgta    720
gttcgaaccg aggcacaaca gaatgtagac cgtatgaacg ccaatcagaa agaactgaaa    780
ttgctgcttg gaggtgcgcc cgacacccgc ctgatgtctt tggcccgtga taatccgttt    840
gatgatccgg atacatcgcg gttggttctg atttatatcg tagtgattac cattctgttg    900
ttggtgcctg ccattaacct gagcggtatc acactttcgc gtatgcgccg gcggatggaa    960
gagatcggtg tgcgacgtgc tttcggtgcc actcgtggag aacttctccg gcaggtgctc    1020
gccgagaatc tggttgttac attgatggga ggtgtattgg gactgatttt gtcgtacata    1080
gccgtgctgt gtatgcgtga ctggttgctc aatacttcta tgtcggggta ttatggagtg    1140
gacactcagg tatccgcagg tatggtcatt caaccgtttg tctttgtttg tgcgttattg    1200
ttctgcttgt tgatgaatct gctgagtgcg ggaattccag ccattcgtgt atcgcgcacc    1260
aacattgtca atgccattaa atag                                           1284
```

<210> 2672
<211> 675
<212> DNA
<213> B.fragilis

<400> 2672

```
actaaagtta tgattacatt aacctctctt tctaaaatct atcgtacaaa cgagattgaa    60
acagtagccc ttgagaatgt caacctgaaa gttgatcgtg gtgaattcct tagcattatg    120
ggaccttccg gttgtggcaa atcgacttta ctgaacatta tgggtttgct tgatgcccct    180
accgcaggga caatagagat aaacggtaca catacagagg gtatgaaaga taaagagctg    240
gccgctttcc gtaataaaac gcttggtttt gtattccagt ccttccatct gataaattca    300
cttaacgtaa tggataatgt ggaacttccc ttgttgtatc gccacatagc ttcttccgaa    360
cgtcgtaaac tggcacaaga ggttcttgag aaggtcggtt tgagtcatcg catgcgtcat    420
tttcgacac agctttccgg cggtcagtgc cagcgcgttg ccattgcccg tgccattatc    480
ggtaatcctg agatcatcct tgccgacgaa cctaccggta acctggactc taaaatgggt    540
gccgaggtga tggaattgct tcatcgcctg aataaagaag acggacgcac catcgtaatg    600
gtaactcaca atgaggaaca ggccggacag acttcacgta ccgtccggtt tttcgacgga    660
cgtcaggtac agtaa                                                     675
```

<210> 2673
<211> 1206
<212> DNA
<213> B.fragilis

<400> 2673

```
atagaagaaa tcatgataaa acatttattg aaacagatat gggcccagcg ctctgtcaac    60
gcctggttgt ggtttgaact gatgattgtc tcagtctgcc tgttctatgt aatggactat    120
ctgtacgtac ccggaagatt gtatgcccct ccgctcggtt ttgataccga gcacgtttat    180
cgggtaaaac tagcttcgat acctcccgga ggaaaggaat ataaacccgg tgatactgat    240
agcttgaaga tagaacaatg gttctccatc ctttcgcgcc tcagggctta tccgggagta    300
gaggccgtat cgctgagtat tggttcgcat ccttacaatc aaaacagttc cagcggttca    360
aggggggatag ataccacttg ggtacacgga tatgtgtata atgtatcacc cgattatttc    420
cgggtattcc gcatcactga caagcaggga aaaccgagt cacttgtaca ggcggctaat    480
caggaaaaca catggatcat ttctgccgaa accgaacgtg agttttccgc taagggaacc    540
gatgcactgg gtaaaggagt gaagaattgg ggagagacag aaccgacaca taccattcgc    600
ggtatatgca ataccatccg ctttgatgat ttttatccgc tttaccctac ttatatcgaa    660
tgtcattcgg aggctgcttt gttagggagg aggggggaata atgcggagtt ttgtgtgcgt    720
gtccgtccgg atgcggatgg tgtggacttt ccgtcccgtt tccgtaaaga tatgaaggta    780
cagcttcggg tcggtaattt ttatcttctg gatattacct cttttgacga tcttcttgag    840
aactattacc gcagcaacgg gaagataaat gatgtgaaaa cccggattgc cgctttaggc    900
ttcttcttgc tgaacattct gatgggagtg atcggtacat tttggatacg gacacagcaa    960
cggcgttcgg agatgggact tcggctggct ttgggatcta cccgtgcgaa cctcagaagt    1020
ttgctgatcg gtgaaggggt tttattatta atactggcca cggtgccggc tgctgtcata    1080
agtctgaatc ttgcctttat ggatttgctg accgatacga tgccggttgt taccgtcacc    1140
cgtttcctga ttgtgcaggc tatgacgttt gtgtcgatag ttgtcatgat cgtcatcggg    1200
atttga                                                               1206
```

<210> 2674
<211> 648
<212> DNA
<213> B.fragilis

<400> 2674

```
agtcataagg tcggtactta tgtcgtttac ttcaaggttc gtcagaaaga agatatgccg    60
aaactttatg cggaagtcaa cgaactggtg cgtaaataca atacttccca gaaagagtat   120
acagtagata tctttcatca accggatccg tattggcaga catggttcag agagggcaat   180
acgaacgaga ttgactgggc atcggtcatt aaactgtatg gaggggcgct tttggcgttg   240
ttgctggtgc ctgccatcaa cctgagtggc atgatatcca gccgtatgga cgatcgcctg   300
gcggaaatgg ggatacgaaa agcgtttgga gccaaccgga aacaattgtt gaaccaggtg   360
ttatgggaga atctgcttct tacctgtatc ggtggattga tgggacttat tgtttcgtgg   420
ggactgcttg tgctggggcg caattgggtg tttagtctgt ttgacaaata tccgacagtc   480
atatccgacg gagtcgatgt ggctatcaat ccgcaaatgc tgttcagtcc tttgatgttt   540
tgcgtaacgt ttgctttttg tttgatactg aacctgcttt ccgcatggtg gcccacatgg   600
cgttcgttac acaaagatat tattgattca ctaaacgaaa agaaataa                648
```

<210> 2675
<211> 246
<212> DNA
<213> B.fragilis

<400> 2675

```
tgtaaagcct caaaacaaaa agacaaaaaa ttcttctcag gaaagaggtg ctcattatta    60
atattaaata atgctcacct atatattatg aatggaataa aagtggggta tagttctcac   120
ggaacttgga aaaagtgat aaatcggctt ttatataact tcgaaccttc tgattcgtcc   180
tttttctttta ttatttcacc tgtacgggta gtcgtattgg tccgggaagc tgattatgtt   240
aaatga                                                              246
```

<210> 2676
<211> 402
<212> DNA
<213> B.fragilis

<400> 2676

```
tcctttcact ccatcatgaa gaatacattc tgcgttttag cctgtttttt cattacaatc    60
ttttgccagg cgcaatcggt tgaagaacat tattatttta agaacctgag tatccgaaac   120
ggtttgtcac agaatacggt taatgcgatt ctgcaggatc ggaaggggtt catgtggctt   180
ggtaccaaag atggcttgaa caggtatgac ggattgtctt ttcgtaagtt taagcatgat   240
gctgctaatc cacgcagcat tggaacagtt ttatcacttc gctttacgaa gatttcaatg   300
gtaaacattt ggtcggtact gatgcaggag tatatattta ctatcctgag aaggaggctt   360
ttgaggaatt cgattgccag agcttggaga agacaaggat ag                      402
```

<210> 2677
<211> 384
<212> DNA
<213> B.fragilis

<400> 2677

```
gaagcaagat ttattataag tcttctgatg tggaaagaat tattgcggat agtgaaacac    60
aaaatcaatc actcaaacaa gccacgcctt atgaaaagaa ctaaagaaaa ttatccgtct   120
ttcaacctgt tttccattgt tggcacatgg gaaagcatta atctgaatcc tacggttatc   180
atctaccgga acgacaacga ttatcttctc tctattatct atgtatcgga aaccacaaaa   240
caggcttcac ctgccactta tgaaatacag aaagaaggta gtctgtattt tatagctcct   300
gctcctaaac gggtttatat agattatgat ccagtgaaag atgtgcttaa tctttcatca   360
cttggtgact atctgcgaaa ctaa                                          384
```

<210> 2678
<211> 324
<212> DNA
<213> B.fragilis

<400> 2678
```
agtgatatgt ctacaattga attgacagaa tgggaattgg ctatcaggga gcaactaatc      60
aaagcggctt ctgagggcaa aacattgtat tattccgact tagtgaaaga aaaagatgtt     120
tctcttgtac gcagcctggg gacagtatta gaaaggatta ctcgatacga tatagagaac     180
aagcaaccga tcttagcatc tattgctgtg ctcaactcca caggcttacc tagtgaggga     240
ttctttgagt tatgcgatac gttggatatt agtgctcgtt tgagtgattt gcagcaaagc     300
tgctttgagt attggaagca atga                                           324
```

<210> 2679
<211> 612
<212> DNA
<213> B.fragilis

<400> 2679
```
aacattcagt ctccaacaaa aaaatatatg gataaattta gttatgcaat tggtctcgga      60
atcggccaga atttgttagg aatgggtgct aaaggcatcg cagtagatga ctttgctcaa     120
gctataaaag atgtgctcga aggaaatcag acagccatca gccatcagga ggctcgagaa     180
atcgtaaaca agtatttcga gagctggaa accaaaatga atgcagcgaa catcgaacaa      240
ggaaaagcat tcctcgaaga aaacaaaaaa agaccgaacg ttgttaccct gccaagtgga     300
ctacaatacg aagtaatcac tgaaggtaca ggcaagaaag cacaggctac cgaccaggta     360
aaatgccact acgaaggtac cctgattgac ggaaccctgt tcgacagctc tatcaaacgt     420
ggacagcctg ccgtattcgg tgtaaaccaa gtaatcccgg gatgggtaga ggctttgcaa     480
ctgatgccgg aaggttcaaa atggaaactt ttcatccctt ctgaactggc ttacggcgca     540
cagggagccg gtgaaatgat ccctcctcac agcacactcg tgttcgaagt agaattaatc     600
gaagtattat aa                                                         612
```

<210> 2680
<211> 1500
<212> DNA
<213> B.fragilis

<400> 2680
```
ttaaaaaagt cgatagcttt tgccctacta ctcagaatgt tctatctttg caccacttta      60
tattttaaac aatttacatt tatgtccaca gaattattct ctaccctgcc ctacaaagtg     120
gcagacatca cgcttgccga cttcggtcgc aaggaaatcg acttggcaga aaaagagatg     180
cccggcctta tggctcttcg cgaaaaatat ggagaatcca aaccattgaa aggtgcccgt     240
atcatgggat cactgcacat gactatccag actgccgtcc tgatcgaaac actggtagcc     300
ctgggagctg aagtgcgttg gtgctcttgc aatatatatt caactcaaga tcatgctgca     360
gcagctatcg cagcttcagg tgttgccgta tttgcctgga aggagaaac attggcagat      420
tattggtggt gtaccttgca ggccctgaac tttgagggggg caaaggacc gacagtgatt      480
gtcgacgatg gcgggatgc cactatgatg atccatgtag gttacgaagc agaaaacaat      540
gctgctgtat ggacaaaga agtacatgcc gaagacgaaa tagaattgaa tgctatactg      600
aaaaaagtgc tggcagaaga caaagaacgc tggcaccggg tagcagctga agtgcgcgga     660
gtttcggaag agacaacgac cggcgtgcat cgcctatacc agatgcagga agaaggcaag     720
ttgttgttcc ctgccttcaa cgtaaacgac tcggttacca aatccaaatt cgacaacctg     780
tatggttgcc gcgaatcatt ggcagacggc atcaaacgtg ccacagacgt aatgattgcc     840
ggcaaagtag ttgtggtatg cggttatggc gatgtaggta aaggctgttc acactctatg     900
cgttcctacg gagcccgggt gctggttaca gaggtcgatc ctatctgtgc actgcaggct     960
gccatggaag gttttgaagt agtaacaatg gaagacgcct gcaaagaagg taacatcttt    1020
gttactacta ccggtaatat cgatatcatc cgtatcgatc acatggaaca aatgaaagat    1080
caggctatcg tttgcaacat cggccatttt gacaatgaaa tccaggtaga tgcactgaaa    1140
cattatccgg gtatcaaacg tgtcaatatc aagccacagg tagaccgcta ttatttccct    1200
gacggtcaca gtatcattct gttggcagac ggtcggttgg taaacctggg atgtgccaca    1260
ggacacccgt cattcgtaat gagtaattca ttcaccaatc agacattggc ccaaatcgag    1320
```

```
ttgttcaaca agaaatacga tatcaatgta tatcgtttgc ctaaacatct ggatgaagaa    1380
gtagcccgcc tacaccttga aaaaattggt gtgaagctga ccaagttgac tccggagcag    1440
gctgcctaca tcggtgtgtc tgttgacggt ccttacaaag cggatcatta cagatattaa    1500
```

<210> 2681
<211> 363
<212> DNA
<213> B.fragilis

<400> 2681
```
aaaatatttc ctgcaattca ttgtgggata aaagataatg cctatctttg cacgctcaaa      60
gaaacatttt atagatcaat aattttatta attatgtatt tagacgctgc taaaaagcaa     120
gaaatcttca gtaagtacgg aaagtctaac actgatactg gctcagctga ggcccagata     180
gctttgtttt cataccgtat tactcacctg actgagcaca tgaagctcaa cagaaaagat     240
tatagtacag aaagagcttt gactatgttg gtaggtaaac gtcgtgcttt gctcgactac     300
ctgaaagcaa aagatatcac cagatatcgt gatatcatca aagagctcgg cttgcgtaag     360
taa                                                                   363
```

<210> 2682
<211> 1599
<212> DNA
<213> B.fragilis

<400> 2682
```
aaatctgtgt tatctgtggt gaagttaaaa ccaaatgaac tcgaaacaaa cccaagaatg      60
aatcaaaaaa ttatttatag tagtgcatta cttgtcggat taggcagccc gcaagcattt     120
gcccataaag aaaaggccca tacccctcaa aaaccgaata tcatctttat tatgtgtgat     180
gatatggggt atggagatct gggttgctat ggacagccat acatcagcac ccctaatatt     240
gacaacatgg cccgtgaagg catgcgcttt acgcaagcct atgccggaag tccggtgagt     300
gcaccttcgc gcgcatcgtt gatgaccgga caacataccg gacattgcga agtgcgtggt     360
aataaagagt attggactca ggcgtctaca gtgatgtatg gcgataataa agaattttca     420
gttgtcggac aacatcccta tgatccggaa catgtcattc tgcccgaaat aatgaaagat     480
aacggatata caaccggtat gtttggtaaa tgggcggggg gatacgaagg ctcggcgtcc     540
actccggata aaagaggaat cgatgaatat tacggatata tctgtcaatt tcaggcacat     600
ctctattatc ccaattttct gaatcgttat agtccgtcgt tgggtgatac aggtgttgta     660
cgtgttgtga tggaagagaa tatcaaatat ccgatgtacg gtccagatta tcataaacgt     720
actcaatact cagctgatct gattcatcag aaagcgatgg aatggatcga gaaacaggat     780
ggtgaacaac ctttcttcgg aatctttacc tataccttgc cgcatgcaga gttagtgcaa     840
ccggaagact ctattttgaa tcattataag acacagtttg ctgatgacaa agctttctggt    900
ggtcaaaaag gatccagata taacgccatt acccatgtgc atgcacagtt tgcgggtatg     960
atcacccgtt tggactatta tgtgggcgaa gttctgaaga agttggaaga gaaaggattt    1020
gatgagaata cgattgtcat ctttaccagt gataatgggc cccatgagga aggcggagcc    1080
gatcctactt tcttcgggcg tgacggaaag ttacgtggct tgaagcgcca gtgttacgag    1140
ggaggtatcc gtgttccgtt tattgtccgt tggcccggtc aggttgctgc cggaacagtg    1200
aatgatcatc aatgtgcttt ctacgatgtc atgcctacct tgtgtgattt gacaggcgtg    1260
aagaacttca cgaaaaaata tgtgaataag aaaaaggaag cggattattt tgatggtatc    1320
tcttttgctc cgaccatact gggtaaaaag aaccagaaaa aacatgattt tctctattgg    1380
gagtttaatg aaacgaacca gatcggtgta cgtatgggag actggaaaat ggttgtcaag    1440
aaaggtactc ctttccttta taatctggcg acagatatcc atgaagatca taatgtagct    1500
gccgaaaatc ctgatattgt gaagaaaatg gttgggatta tccatcagca acatacggaa    1560
aatccaaatt tcaaggtaac attacctcct actatgtaa                           1599
```

<210> 2683
<211> 183
<212> DNA
<213> B.fragilis

<400> 2683
```
tcaacatcta caccctttaa cggactattc cgtcagtccg cggcgttgtc actcctccgt      60
```

```
ctccacatca ctcctacagg tagtacagga atattaacct gttctgccat cggcctcacc    120
gttcggctga gccttaggac ccgactaacc ctgatccgat tagcgttgat caggaaacct    180
tag                                                                  183
```

<210> 2684
<211> 1359
<212> DNA
<213> B.fragilis

<400> 2684

```
ttttatttca catttaatta taagattatg agtagtaata gtacaaatat agacccagca     60
attctcacta gtattttagg agaaaaaaga gcaagtgaaa aatatgctaa actaggcatt    120
aaatataatc cattccccag gtctggtacc actaacataa atgggaatga tatatacaat    180
agattcatga ttcctattga tccagttgta ttaggacagt taaatatgtt tatttccaat    240
tcactagcaa ataatgagat agacaatact gacaaattta taagtgcaac agtattgggt    300
aattatggga gtggaaaaac tcagcttcta atgtatactc gatttctatt aaatatgatt    360
gctacaagct ctgattatga ggcaactcca tatgtgatat atatagataa ccccggtgtt    420
agtttattgg aatttatagg gaatataatt gccagaatcg gagaggaaaa tcttagaaaa    480
tatttatgga ataacatcat taatgttatt gacaatgagt atgagtataa aaatatacta    540
ttgccatatg taaataatac aattcttttg tttgatacag aaaacaaaga ccctttgct     600
gcagaaaaca gagttagcta caaacaattc ctcactgtct ttactcaaaa catcacaaca    660
acagataaaa gaaaaaaatt tgatttagaa ttcaggaatc tactacttaa agtattagat    720
tactacacta aagattctgt ggtttcgtat tatttttacg aattcatttc aggagattat    780
ggcgttaata aaacttggga agccttaaca agtggctcct tgaaacagct aaaaggcaag    840
gaagcacgtg ttattaaata tattgtaaaa ttagtaaaag agcaaggatt tagcgacttc    900
ttcatacttg ttgatgaatt tgaagatata acagaaggac gtctcactaa atctcaaata    960
gataattatg tatacaatct gcgtacctta ctagacgaac aaagagaatg gtgcctaatg   1020
ttcacaatga ctccattagc tttgaaaaag cttaggagtg tttctcctcc tctcgctgat   1080
agaatttcat ctagagaaat atggttgcaa gatttaaata ccgaacaagc catctctatt   1140
gtcaaaaact atatgacaat tgtagaacac gactccttgc tgccttttac agaagatggt   1200
atagcatatc ttgtagacat tgttgatgga aatattagac gctttctaaa aatgtgcttt   1260
aggctaatcg aagaagccgc tctaacattc acctcaccag ataacaagat taacaaagca   1320
ttcatagaaa gtcaaaattt attagaacag gaatcataa                          1359
```

<210> 2685
<211> 342
<212> DNA
<213> B.fragilis

<400> 2685

```
ccgcatacca caactacttt gccggcaatc attacgtctg tggcacgttt gatgccgtct     60
gccaatgatt cgcggcaacc atacaggttg tcgaatttgg atttggtaac cgagtcgttt    120
acgttgaagg cagggaacaa caacttgcct tcttcctgca tctggtatag gcgatgcacg    180
ccggtcgttg tctcttccga aactccgcgc acttcagctg ctacccggtg ccagcgttct    240
ttgtcttctg ccagcacttt tttcagtata gcattcaatt ctatttcgtc ttcggcatgt    300
acttctttgt ccaatacagc agcattgttt tctgcttcgt aa                      342
```

<210> 2686
<211> 237
<212> DNA
<213> B.fragilis

<400> 2686

```
gtgcgctcaa ccagtgtacc ttttaagtcg agcatcatca cagaattctt ctttaccaca     60
gtttctgtat ccgatgacga aatgattccg acaagcgtta cgactccgat aatgaataaa    120
acaatgcccg ataacacgat gccggtcact gtagcaagcg taaatttaaa gaaatctttc    180
attgtacata ttgttttttat gccagctctt ttaaagctaa caaagataaa taattga      237
```

<210> 2687

<211> 990
<212> DNA
<213> B.fragilis

<400> 2687
```
atatatagaa ccatgcacat agattttgca ccaccatcaa aaggtacata caacaatgca     60
ggtagcagcc gtcaattagc ttcatacatg gaacatgaag acttggaacg gatggaaaaa    120
ggaatctata ccgatggctt tttcaatttg gtagatgata atatctataa atcaatggtt    180
ataaaagata tagatagtaa tatcgggcaa ctcttaaaaa cggatgctaa gttttatgcc    240
actcacgtca gcccatcgga aaaggaactc cgagcaatgg gtagtacaga gaaggaacaa    300
gccgaagcaa tgaaacgcta tattcgtgaa gtgtttattc ctgaatatgc caaaaatttt    360
aacaaagagc tatccgcctc ggatataaag ttttacggaa aaattcattt tgatcgtaac    420
cgttcagata acggactgaa tatgcactgc catttgatta tcagtcggaa agaccaagcc    480
aacaagaaaa agctatctcc gcttaccaat cacaagaaca ccaagaacgg agtaataaaa    540
ggtggcttcg cccgtgtgaa tctgttccaa caagcggaac aaggctttga taaattgttt    600
ggctacgacc gccaacaatc agaatcgttt gactatcaca acacgatgaa aaacggttct    660
atatcggaac agactaaact acaagagcaa gatattcaat ccagtgacag aaaagcagga    720
atcaatcaag gtagcaatca agaaaacttg ctttctatca atcttgtaaa caagagaata    780
aacaatcagg cttctagtat agatacacat attgtcatca aacagaaaga caatgcttat    840
agcacttcat ctttcaatca agaaactaat caaatattcg gttcattcat ttcttccgca    900
gcgcaagata ttagatcatc atccaatcat gaagaccaaa cactaaagtc taagaagaag    960
aaaaagaaag aaaggataaa caaactttag                                     990
```

<210> 2688
<211> 195
<212> DNA
<213> B.fragilis

<400> 2688
```
ctgcagatga catgcttgtt cgatacaaca tcaaagaact actggaccag cttccctaac     60
ggcttttctt cttcatataa cagccccata ctctgcattg aattcaacga agagtatggg    120
gttattattc aaatcatcca tcttatttat aaagaattcc tcagaaagtc gttatctttg    180
cacgttccca agtag                                                     195
```

<210> 2689
<211> 2049
<212> DNA
<213> B.fragilis

<400> 2689
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aatgaaaaga cccttatgaa aatgatttta aagacaatgg tgtgtctggc agtagctttt     60
tccggaactg caggggcagc taattattct ccggaaaagt cacaagcttc tttggcactt    120
aaagtcccgg ggaatccggc tgtggaatat ccgcttactc tcagtaaact atcggatagt    180
tatttcgatt atgagtggaa agcaaaagag aaaataccgg taactatctt tcagcagata    240
tcaactgtgg atgataaaca gcaggtaacg gtggttctga cggctatgga agatgtgtac    300
ttcaattttg aagagcgaat cagaacggat tttcgtcatg atgattgcca gttttatttg    360
ccaggtttct ggtatcgtcg taatttacgt tcacctaaag aggctccatc gtttcatact    420
tccgatagct gggtagtgcg tgaagataga ttgagcacgc ctttgaccgg tattttttgat    480
gaaaaacaaa agaaatacat gactgtggtc cgccgggcag aatatattca ggacgctttg    540
agtactcata aggaaggtga ggtgattctt cgggaacta cttcactcgg tttcaccgga    600
tttgaaaatc tggatggaac ggctgctttg gcatttggtt ttccgtataa agaggctcca    660
aaaacctata ttcgtaaact tacacttgca ccttcagtca ctgctttcca actattaaag    720
aaaggagaga gtatttcact aacctgggaa attcatgaag gaaaagggga ggattttgcc    780
gagtttgtaa gtcatacttg gaatattgc tatgatactt ttcaaccgaa acctgtggaa    840
acggattata ctcctgatta tactaaagag attcttagcc attttttat tgagagtttt    900
gtaggtgatc gtcctctgaa ctataattca ggggtacata tgcgtactga tgattgccaa    960
aatacaggtt cggcagaggt tggttttgtg ggacgagttt tgctgaacgc atttaatgcc   1020
tgggaatatg gctggaagaa taatcgggct gatttaaaag agaatgcagc gaaagtctttt  1080
gatacttatt tggtgaatgg gttttctcct gcaggttttt tcaaagagtt cgttgactac   1140
```

```
cgtaccggtt atgaggagac ggtatttagc attcggcgtc agtccgaagg tatttatgct    1200
atatttcatt atctggattt tgagaaaaga aacggacgta aacatcctga gtgggaagcg    1260
aaggtacgta aaatgcttga tgtattcctg cagttgcaaa atccggaagg aagtttccc     1320
cgtaaattta aggatgatct ttctattgta gataagagtg gcggaagtac accatcggct    1380
actctgcctt tagtgatggg gtataaatat ttcaaggata aacgttatct ggaaagtgct    1440
aaacggaccg ccgaatatct ggagaaagaa ttaatctcta aatcggatta ttttttcgtct   1500
actcttgatg caaactgtga ggataaagag gcctctttat atgcggctac agctacttat    1560
tatttagctt tggtaagtca gggcaaagaa cgtgaacact atacgggatt gacaaaaaaa    1620
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cacatcgatg tgtttatctt tgaatttgct tctatactaa attggctttc caaagagtat    1800
agcgaacctc gtttctcaca gtttgccgaa gtaatcagta cttcaatgcg tcagttactc    1860
ccttatgaag ggcatctgtg tggagtggct aagtgcggat attatcctga ggtagtgcaa    1920
cataccaatt gggattatgg caaaaacggg aaaggatatt ataatgatat atttgctccg    1980
ggttggacag tagcttcttt atgggaacta ttttcaccgg gacgtgcaga acagtttttt    2040
ctgatataa                                                            2049
```

<210> 2690
<211> 972
<212> DNA
<213> B.fragilis

<400> 2690
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ataaggtatt tcaagatgaa aactgatttc atacaaatag ccagttatgc ttccaaagct    60
ccttcgggac ataacacaca gccttggaag tttcatatta cggacagtac tattacggtt    120
ctccccaact taaatgtagc gttacctgtc gttgatagaa acaatcgtga gttatttatt    180
agcttaggct gtgctgttga aaacttatgc atcgctgcca gctattttgg ttacactacc    240
catataatag aatgcagtat agaagcgatt attcttgaat taacgaaaaa tgacctcaca    300
attgaagatc ccctattcca tcaaattgag aaacgacaga caaaccgcaa tatctataat    360
ggcaataaaa tatcaaatgg aattctacaa caacttcaat ccattccgaa agaaaatggt    420
attcaattct actttactga aataaatacg ccatttgcaa atacaataac ccaatacata    480
atgaaaggaa atgaaattca aatggctgat attgctttca gaatgaatt gctttcgtgg     540
atgaggttta ataaaaaaca agttgaggct acacataacg ggctaagtta tttggttttc    600
ggaaatccac cacttcctag aatattagca cgtcccatag ttagcttatt cttaaaacct    660
aatgcgcaaa acaaatcgga tagaaagaaa atagattctt cctcgcattt tgttgtatgc    720
accacacaac gagatacaat cgaagagtgg attaacttgg ggcgaacgct ccaacgcttt    780
ctgttaaaag taactgagat cgggattgct tatgcttttt tgaatcagcc gtgcgaagtt    840
gcggcattag cttttgactt acgagagaaa ttacctgtca ataaggaaca cccaacatta    900
ataatgagaa ttggttatgc aaagcaaatc ccttattctc cccgtaaaaa gattgaaaca    960
ttactagtct aa                                                        972
```

<210> 2691
<211> 786
<212> DNA
<213> B.fragilis

<400> 2691
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atttgtaagg ccttctttca cgtttctttt gagaggtggg gagtgaggcc ggtttactta    60
aaaataaaag ctagtatgaa aaatctggtt gtattgtcag cgccgggat gagcgctgag     120
agtggcatca gtacctttcg tgatgcagga ggattgtggg atcgttatcc ggtagaacaa    180
gtagccactc ccgaaggtta tgcacgcgac cccgaactgg tgacccattt ctataatgaa    240
cgccgcaagc agttgctgga agtggaaccg aatcgcgggc atgaactgct ggccgaactg    300
gagaaagatt tccgggtaac gattgtgacc caaaacattg acaacttgca cgaacgggcc    360
ggtagcaggc atattattca tttgcatgga gagttgacaa aggtctgctc aagccgcgac    420
ccaaacaatc cgcattacat taaagaactg aaacccgaag aatttgaagt gaagataggt    480
gaccttgccg gagatggttc gcaactccgc ccgtttattg tctggttcgg tgagtccgta    540
ccggagatag agacggctat cgattgggtg gagaaagctg atgttttgt tatcatcggt     600
acgtccatga atgtgtatcc ggcggcgggg ctgcttaact acgttccccg aaacgcggaa    660
atctatctga ttgatccgaa gccggtggat gtacatagct cccgtccgat acatgtcatt    720
```

```
cagaaggtg  catcggaagg  agtagctgag  ttgcgggaga  gacttcttac  cacaaaccat      780
gcgtga                                                                     786
```

<210> 2692
<211> 789
<212> DNA
<213> B.fragilis

<400> 2692

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aagtacctt  actgtatgaa  taaaatgaat  gtagccatta  tagaagatga  aattccggca      60
gcccgtttgc  tacattccat  ggtatccgga  cttcgccctc  aatgggagct  tactctgata     120
ccagggagtg  tagacgaagc  cgttgcctgg  tttgacgagc  atccgcatcc  cgatctgatc     180
tttctcgata  tacatctggc  agatggcaat  gcttttgatt  tcctctctgc  cgcacaccct     240
tcttccgtca  taattttcac  tacggcgtat  gatcagtacg  ccattcgtgc  atttacggtc     300
aatagtatcg  attacatact  taagccgata  gacgaaaaac  gcctgtcgga  tgcaatcact     360
aaatatgaga  gcttgctgac  caatgctgtt  cccaggccgg  aagattactt  aggtactctg     420
tttgaggcac  ttcaatacaa  agagaaacgt  taccgtaccc  gttttcttat  ttccggagta     480
gatcgtttct  ggtcgttaca  agtggcagat  attgcctatt  tttattccga  gaacaaagta     540
acgtttgctg  ttacccgcaa  aggtcaggaa  cacattctag  atttgtcttt  aaacaaactg     600
atggaacaac  tcgatccgga  gcgtttcttt  cgcgccaacc  gccaggttct  tgtctgcatt  .   660
gatgccattg  accatgccga  gcctttcttt  aacggaaaga  tagtggtaac  tgtgcgccct     720
ccttataaac  agaaaattac  gataagcgag  gagaaacttt  cagctttaa  actatggctg      780
aatcattga                                                                  789
```

<210> 2693
<211> 1062
<212> DNA
<213> B.fragilis

<400> 2693

```
atacttcctt  atcataaaat  aagatatatg  agaacagaga  tagcaacctt  aggtgaattc      60
ggactgatca  agcatctcac  cgaaggaatt  aaattagaaa  atgaatcaag  caaatatgga     120
gtaggcgacg  atgcagccgt  cctctcctat  cctgccgaca  agcaagtgtt  ggtgactacc     180
gacctcttga  tggaaggtgt  acatttcgac  ctaacctaca  cgccgttaaa  gcatttggga     240
tacaaatctg  ctgtggttaa  cttctccgac  atctatgcga  tgaatggaac  gcccaaacag     300
attacagctt  cacttgctct  ctccaaacgc  ttcagtgtgg  aagatatgga  tgaattttac     360
tccggactcc  gtctggcatg  ccaacaatat  aaagtcgata  ttgtaggtgg  tgacaccacc     420
tcttctttga  cagggtttgc  catcagtatc  acttgtattg  gtgaagccga  caaagataaa     480
gtagtttacc  gtaatggcgc  caaagatacc  gacttgatct  gtgtcagtgg  cgacttaggt     540
gccgcctata  tggggctgca  actgttagaa  cgcgaaaaag  cagtctttaa  aggcgaacag     600
gatgctcagc  cggatttctc  cggaaaagag  tatttgttgg  aacgacagct  caaaccggaa     660
gcccgcaaag  acattattga  gaaactgtcc  gccgcaaaca  tcgttccgac  ttctatgatg     720
gatatctctg  acggactttc  ttcggagcta  ttgcatatat  gtactcaaag  taaagcaggt     780
tgccgtgtct  acgaagagca  tatccctatc  gattatcaaa  ctgcagttat  ggcagaagag     840
ttcaatatga  acctcaccac  ctgtgccatg  aacggtggtg  aagattatga  acttcttttc     900
actgttccca  ttgccgatca  cgaaaaagta  tcggaaatgg  aaggtgtccg  cctgatcgga     960
catattacaa  agcccgaatt  aggctgcgca  ctgatcacac  gcgatggtca  ggaattcgag    1020
ttaaaagctc  agggatggaa  tcccctacag  gaaaataaat  aa                        1062
```

<210> 2694
<211> 1323
<212> DNA
<213> B.fragilis

<400> 2694

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aaagctaatt  acgaaggtgg  atatcgaatt  aatattctta  tctttgcata  tattaaaaag      60
ataaaaatgg  attttttaca  ttcagaaata  ggatcagcca  aggacaactt  ttatagccct     120
gttcataatt  ggtacaaatt  taccgcaggg  ttctcataca  aatttgtcga  agcaatatta     180
gaaggagaaa  aaaactccca  gaatattgta  tttgagcctt  ttgcaggatg  tggtactact     240
```

```
ttagtgtcat cacaaaaatg tggggtaaag gccattggaa atgaaggaca agaatttatg    300
ttagatataa taaaggctaa attatattgg aacatagata agacagaatg tattaactct    360
ctaaactaca ttgattcata catcaaagaa catctaacta attttagtat ggaagaggta    420
catccactgc ttagtactct gtatgacaat gaaacactca aagtattata tttaacccgt    480
gatagccttg atcatatatc caatgataaa attaggctct ttttaaaatt agcattaagc    540
caaactatgc ataaggtagg cttatatccg atagcagtac catatatttc aagaactaaa    600
cgtatggcca acagcggaca tgcatttgca agatttcaat caatagtatt acagatgtta    660
gaagatatag gaccacttca aaacatagag caaacatcag aaatatatct tcatgactca    720
agatttgaaa atccgaatat tggtgattct atatgtaact attgtataac ttctccaccc    780
tatcttaata atttagatta tggagaagtt tcaaaagttc acactcattt ttttggtctt    840
acagaaaact ggaatgatat cacacagaaa gtaagaaaaa atctagtcac aggagcaaca    900
acacattata gagatatcga ctttgacata aacatcttta aagaaaacga tttttcaaaa    960
gaaaatcaac ttgttttga tgaactttt accagctata ttcaaattat ggaaatagca   1020
aaaacaagaa atggaaaaaa aagtttcaat atacttatga tgcactactt cgaagatatg   1080
tattatgtct taaaagagat gagaagagta ttaaaaaagg gatctaaagc atatcttatt   1140
ttaggagatt ctgcaccata tggtatttat attcccacta cagaattgtt gggaaggatt   1200
gcttacagtg tggggtttaa taaatatcat atttataaaa taaggactag aggtacaaaa   1260
tggaagagtc tcaaatatag acataatatt gaattatcag aaaacgtact tgtattggaa   1320
tag                                                                 1323
```

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<210> 2695
<211> 504
<212> DNA
<213> B.fragilis

<400> 2695
acgcgaattc tatatatgaa aaagaaaaac gaacaatggc tacgatacag taatcgggcg     60
ctttcaggat tacttatgtt gtttggattt gtgtcttgtg acaatggagg tggagatata    120
cctgtagaat atgggatgcc ttctgctaaa tatcgggtga agggcaaagt gattgatgcg    180
gatacgcagg aacctgtacc gggtatagaa gtggtcaccg gagctgtgca tacgggcgat    240
ggcaaagaat ggctcagtta tccggatacg ttgatcactg ataaagatgg agcttttgct    300
actgaaagga cggagtttcc atctaaaaaa tatcgtttta tcgttcgcga tgtggatggt    360
gatgccaatg gtacttattc taaggatagt gtcgaggtag aagccggtgg atttacaggt    420
ggcagccatt ggtaccgtgg agaaacaagt attgataaaa caattgaaat caagaaggag    480
acagcaaaag acaatgaaaa ataa                                          504
```

```
<210> 2696
<211> 339
<212> DNA
<213> B.fragilis

<400> 2696
agcaaaatgt atatagacaa cgaaaacttt gagaaatgga tggagaagct atctaagaaa     60
ctcacagaaa tagggaaaga cttaaaatcc ctaatcaata ccgataaagt attagatgat    120
aatgaaaga tactcgataa tcaggattta gcctttcttc tgaaagtatc tttccgaact    180
cttcaacgtt atagagtaag tgggctacta ccattcttta ccatcggaaa gaaaacttat    240
tatcgtgctg gtgatatccg gtctttcgtt cgtgaacgtg ctgatttcca agcctacaaa    300
cagtttgaaa aagccaatca attagagaat cagccttga                          339
```

```
<210> 2697
<211> 699
<212> DNA
<213> B.fragilis

<400> 2697
aaaaaagatt tatctttgtg cttagaaata ctaagcatta caagaaaaac catgaatatg     60
aacaaaaaaa taatgcaaaa gggttggctt tatgagtatg aggttggaga agaatatcga    120
aggaattata attgcgagct tactgatgtg cgttatgtgt tgggcgaaca attcgatatg    180
gacaagcaga gtgcgctgat ttgcataggt atcaatccca gtatggcaat gcccaacttc    240
```

```
cttgacccga ctttaaagag ggtacaggag tatgcaaaaa ggagtggcga atacggggca    300
tggtatatgt tgaatgttta tccccaaaga gcaaccaacc ctaataatat ggatacagat    360
gataattata acatggagat acatttgcgc aatcttgtag ccataaaaaa aatgttatct    420
accattgata atgcagatgt gtggtgcgca tggggagcaa ccataagtga tcccaaacgg    480
acatacctgt ctgatctgtt attcgggaat gaaaataaga atatacaggg tataatcggc    540
ttattcaatg ggaattatca tttttaaagca tacggagcta ccactaaagg ttatcccaag    600
caccctcttt taataggaaa aggagccaaa ttgaaaactc taaatgaagt ggaactaaaa    660
gaattatcag atagaattac taatataatc aagaaataa                          699
```

<210> 2698
<211> 543
<212> DNA
<213> B.fragilis

<400> 2698
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caaagcattc atagaaagtc aaaatttatt agaacaggaa tcataatgga atcttggagt     60
caaacaccaa taaaagattt taaagtatca ttttttcttg atacaaacat cttgtgttat    120
ctagttgata gtacatatcc aaatctaaat aaatttatta attatttagg taacaatcct    180
ttttctgatg tcatatcatc tgattatgtt ttgttagaat tcattggaat aaggaaaaga    240
gaacactatt tgagagctgt attaaaaaaa ggagagcaag atggacaaag cgtaaatcta    300
agttcacttt tgaaatttca taatcaatac tctgccccag aggtggattt tattagtatt    360
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attgatttta attgcaaatt tcatatagac ttatttgaac ctacaaaaaa catttgttta    480
gtatccctaa aatccgcaac tatcatccaa tacacgatta agggtagatt tatgagtcgt    540
tag                                                                543
```

<210> 2699
<211> 1842
<212> DNA
<213> B.fragilis

<400> 2699
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atttcaactc aattatttat ctttgttagc tttaaaagag ctggcataaa aacaatatgt     60
acaatgaaag atttctttaa atttacgctt gctacagtga ccggcatcgt gttatcgggc    120
attgttttat tcattatcgg agtcgtaacg cttgtcggaa tcatttcgtc atcggataca    180
gaaactgtgg taaagaagaa ttctgtgatg atgctcgact aaaaggtac actggttgag    240
cgcactcagg agagtttaga aggtttactg ggtaaattta ccggtgaaac agccgataca    300
tacggactgg acgatatact ggcttcaatc aagaaagcta agaaaatga taacatcaag    360
ggcatttata tacaagcctc atggctgaat gcttcgtacg cttcgctaca ggcgatacgt    420
aaagcattgg atgactttaa ggagagtggc aaatttatcg tagcatatag cgacaattat    480
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atgatcgaat ggcgcggact cgcttcagca cctattttct ataaagatct attacagaaa    600
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accgccacag agatgtctcc agccaaccgg aagcaggtta cagctttcat cggttctatc    720
tggaatcaaa tattggatgg tgtttccgct tcacgtaaaa taggaaaaga ttcactgaat    780
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gccgacacgc tgatttatca aaatgacgta cgcgactatt gaaaacact tgtaaaaatc    900
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ctgcgtaaac tgaaagaaga tgacgatgta aaagctgttg tattacgcgt aaactctccg    1140
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aaaccggtca tcgtctcgat gggcgactat gccgcatccg gtggatatta tatctcttgt    1260
gctgccgaca gtatcatagc cgagccaacc actctgacgg gttctattgg aatcttcggc    1320
atgattccga acgttaaagg attaaccgaa aaaatcggat tgacatatga cgtagtaaaa    1380
accaatcaat tctcagactt cggcaatctg atgcgcccgg taaacagcga tgaaagagct    1440
ttgctacaga tgatgatcgg ccaaggatat gatttatttg taagtcgttg tgccgaagga    1500
cgccatatgt ctaaagataa aattgagaaa atagctgaag gacgtgtatg gaccggagag    1560
atggctaaaa aaatcggatt ggtagacgaa ttgggtggaa taggtaaggc actggaaata    1620
```

```
gctgcacaaa aagccgattt aaaaggatac accattatat cctatcctgc caaaaaggat    1680
attctgtcta cgttgcttga tgtccacccc ggtaattatg tagaatccca agtgctgaaa    1740
agtcaactgg gagactatta taaagatttc agcctgctga aaaatataaa agaacgcgcc    1800
atgattcaag cacgcgttcc gtttgaactg aatgtgaaat ag                       1842
```

<210> 2700
<211> 3537
<212> DNA
<213> B.fragilis

<400> 2700

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tcgtataatc aaaaaatgaa agacatgaga ctatgtttta gcgtctgtaa caggcgtttt     60
ctgacaggcg taattatgtt tatgctcctg tatcctatgt ccgttttttgc cgtgcaagga    120
cagatagccg tgcaaggaaa agcaatgagc attaaacagg ctattcaagt tattgagaag    180
aacagtaaat atacgttctt ctacaaggcg gccgatttga gcaatgcaaa gatccgtgac    240
atccattgtg aaggttccat agaggaagtg ctgaatgttt tgtttaaaga tagcggtatc    300
agctatgtta tcaaagacaa tgaggttatt ctgaagagta ccccggtagt ggttgcaacg    360
ccacaacaga gtaataagat cgttgtgaaa ggcaatatca gggatacttt gggtgaatcg    420
gtcattggag ctaccattat ggagaaaaat aatgctcaaa atggttctat cagtgatata    480
aatggagatt tctccttgtc ggtaagtccg ggtgctgtta ttgttatctc ttacattggt    540
tatgtaacgc aagaattgaa agccatagcg ggggcccctc tgaaagtagt actgaaggat    600
gattcccgta ctttggatga agtggtggta gttggtttcg gttcacaaaa gaaagcgaac    660
ctgacggggg ccgtttcatc tattaaaatg gacgaaatta ttggcgatcg tcccattatg    720
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tcggcagcta tttatggtgc acgtgcagcc ggcggtgttg tcttagtgac taccaagcgt   1020
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accaatctgc ctaaacaggc atctttgatg gattatctgc aggcttatca ggacggggga   1140
tattctgatg cttattggtc gtatggttca cccagcgttt caaagtggaa agaatacctc   1200
acacagtata ggcaggatcc ttcatctatc aaaactgtag gtgacggtat tttcgcagat   1260
acggatggag ctttgtatta tttgaatgag catgatccct ataagaattt tatggagacc   1320
agcttccaga tgaaccacaa tctttctgta tccggtggta cggataaatt gcgttatcgt   1380
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<210> 2701
<211> 1971
<212> DNA
<213> B.fragilis

<400> 2701
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cctatcaaag caggtgaagg ctggcaggag agatattatc tttatgaggt tcctactcaa    1920
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<210> 2702
<211> 288
<212> DNA
<213> B.fragilis

<400> 2702
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ttcttccgtc aacgttacca atgtttttatc ctgacattgc aaaacataac ggtatacact    180
ggacaaatgc ttggtgaaat gaacagcatt acccgggtta tattctattt cagcaatcag    240
cgtattgaga ctattaaaca gaaaatgggg attcagttga ctttgtaa                 288
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<210> 2703
<211> 201
<212> DNA
<213> B.fragilis

<400> 2703

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aagaataacc acatagtatt aatgctgctg aaggctgttt taaaaaacga cctaattggt     60
ctgataatgc taagaatggc attttccgac tttggtcata tttttaagtga gaaggatata    120
ttaaatatga agattcatct gtatcatttt tatatgcatc agaacgaaaa acgtctttat    180
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<210> 2704
<211> 189
<212> DNA
<213> B.fragilis

<400> 2704

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cgtattgacc aaaactatta cttggcacaa aatctctttt tgtcatcatt gttattattt     60
ttaatagtta ttagatatat ctgctcttat ggcttctact tggcactagg aaaaggggtt    120
ctagcacccg ttatccgagg tctttccccct tttcagtgcc gaagtgctca agtgctgatt    180
ccttttttag                                                          189
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<210> 2705
<211> 1128
<212> DNA
<213> B.fragilis

<400> 2705

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ttagatatct ctgttatgat gaaggattcg atagaagtaa tcaaattgga gacaacagac    180
agttgtctta ttggctttat taacaagatt tcatttactg acaagcatat attagtctcg    240
gatgcacgtg taagtcagaa gatatatctg tttgataaag ggggcaagtt tattcgttat    300
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gctaatgaaa ttaaagatga tataccctat aagactcacc attccggagt ggttgcactt    480
gataattatc tttattttat atctaactat tttacctctc caataggtga ttataattgc    540
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aaactgttgc gttttaataa tttagacaga aaatctataa acaatgaatt ttttatagag    960
gataactatt tgattttttg ggatactatg caaagtttga agttatggag gaggtatttt   1020
gataaagctg aatttactaa tccggctgac aaacaagaa tacagtctat cattgatta   1080
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<210> 2706
<211> 1332
<212> DNA
<213> B.fragilis

<400> 2706

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atggcgataa tcgcagcggt agcgacggca gtaggtacaa ctgttaagct tcagtttaaa   180
caggggtttg aaatattcgg gaacatatat tgttactta tttccgatcc aggtacctgt    240
aagtctcatc ctatttcatg ggcttttcgt cctattgaca agcgacacca gtctatgtta   300
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attccttacc ttacagttat tggaacgact caaccatcga tgttatccga aatatattcg   660
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gcagaaaaaa tagaaagtga agatagagga caaacctatc aagatgctaa aacgaaactt   960
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gtatatgatc tagtgatggc caaggctgat tttactaaag atcaattaaa aaagttcgta  1260
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ttgagtgact aa                                                      1332
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<210> 2707
<211> 3756
<212> DNA
<213> B.fragilis

<400> 2707

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gataagcaag gcagggtttg gatagctgtg gaggctcagg gaatgttctg ttacgatgct   240
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gtgaaggaag gtgtgagtga gttgaatctg acttcggggc aagtgcgtaa cctgttggct   540
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gaaatttgtt atacagtggg atttaattcg ccttcttatt tctctaaatg tttcttgaaa   3720
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<210> 2708
<211> 258
<212> DNA
<213> B.fragilis

<400> 2708
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aggtataagg atgaagatac cggttcagac ggtgtaaact cactttcgaa acttgagcta   180
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ttggaaataa agaaataa                                                 258
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<210> 2709
<211> 303
<212> DNA
<213> B.fragilis

<400> 2709
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aacctaatgg aacgcatccc catcctttac cggaatcctt taataatcaa accatgcgga   180
ataattatcc catcgggtat taatctttct ttcgaaaggc tatccccgag taaagggcag   240
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tga                                                                 303
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<210> 2710
<211> 1704
<212> DNA
<213> B.fragilis

<400> 2710

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gcttatcagg caggtgatct ggacaaagct caatcatacg tgaagaaagc agaaagcatt     1260
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ggtaacctgt acgtagctca gggacaatac gaaagagcag ttaacgcatt tggtgatact     1440
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gcaagaacta acaacacttc tatgctgaca agcagcttga gagtgctgt agctaaaaac      1620
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<210> 2711
<211> 741
<212> DNA
<213> B.fragilis

<400> 2711

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atcgaacagg gtgaacaatg gttgcatgat tttcctttgt tcttaggtat aacaagaag       180
aacccacctc aaattgctat ctggctggaa gatacacaag ggaattatct ttcaacagtt      240
tatgtaactc acaagattgc gacccaatca tggcaagcat cgggaggaaa ccgacggaaa      300
gaagctctgc ctcattggtg ttattcacgc gggataaaat acgatgatga actttatttg      360
cccacaaaga aagaaccatt aacagatggc atatcagggg caaccccaca tggaagtttt      420
gatatcaaat taagtccgac aacagcacta aagaaatttg tggtaaaaat agaaatcaat      480
cactctaccg atttcaatga agcctttccc aaattagcca agaaggaga aaccaactat       540
tctggtggta agaaggaag tggacaacca gcgattgtat atactgccaa tgtcgattta      600
ttatcaggag aaaaatcatt tgaagcaaat ttgatcgggc atagtagtcc agatggaagt      660
tcgggagaga ttaatgaaga tacatccggg cttacaacag ctttacacat tgtaaaacgc      720
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<210> 2712
<211> 1233

<212> DNA
<213> B.fragilis

<400> 2712

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tctatagaaa taactcctcc tgagaattgg cctttgattc cagacatgaa gaaactttcc   180
gaatatgtta catcaattct aaaatcaagt gatacaacaa aattaagtac ttatgacaga   240
cttattagtg agcttgaaaa aacgaataaa agcaaagaaa atcttgaaga tattcttagc   300
tttattcgct cttttaaaga tgtagcacaa ggaggggggaa ctgttagagg actaactgaa   360
acagaattgg aagatttaga aactaatata tgtaaattaa tagtaggaaa aatacgagtc   420
aatctgccca ataaaaatac cccatatcac aaaattggcca aatggataag ctctattgat   480
agagaaaaac ccatagaact ctttactaca aattatgatt tgcttatgga acaagcatta   540
gaggatgtag gtgtacccta ttttgatgga tttgtaggct ctcgacaatc attttttgat   600
ttaagaacag ttgaagaaga tctagcaccg agacattgga ctagactttg gaagattcat   660
ggttctatta attggtttca aaaagaaaat aaagacgttt ttcgttctga tgcatataaa   720
aatgatacag atgaatcttc atatttaata tatccttctc acttaaaata tgaccaaagt   780
cggaaaatgc cattcttagc attatcagac caattaggtc gttttttaaa acagccttca   840
gcagcattaa tactatgtgg ttattctttc aatgacgagc acattaatga tactatagtt   900
aatgctatta aatctaaccc aactgctata gtaatagctt taatgtttgg aaatatggaa   960
gatggtagta tagaacgcta tccaaaagga gttgaactcg cattaaaaag acacaatata  1020
agcttctgga ctaatgatga agctattatt ggaactaatc gagggcaatg gatagtctta  1080
gataaagatg tagatgatcc tctaatacaa ttagtagaag taaattcttc tactaacaat  1140
aaaactatta aatttggaga ctttaaagtt ttctccactt ttttgacttc attaattggg  1200
taccaagaag aagaaaataa aaatgacaag taa                                1233
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<210> 2713
<211> 1308
<212> DNA
<213> B.fragilis

<400> 2713

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tcaagaaata aaagtatgaa aatgaagtat ttgttggctg cgtgtacagc cttttttctc    60
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ctgaacatca aagatgccaa gtatatctat acaagtggta gcaatactcg ctcttcctct   180
gcggaatatc ggcagataaa aaaagacggt agggacatgg agttatcgtg gattgacagc   240
aagggtgata cgattaaaat aagtggtaat cctaaaatat ggaatatcaa taaaaagtat   300
ttgatgataa acacaggtgt gcctataaac tatcagccaa aatatgatga agatggagat   360
aggcttcctg atagtacccc tctgggagga tattcttatc ttattgacaa aacaacagaa   420
gctatttatg atttagctga agggttaaac ggagaaaatg cggtaaccga caataaagga   480
aatatttatg ctgtggataa ctcaacggga gcagttcttt tcaagattca cacgcaagat   540
gctgctaatt tgaaattaga gttatatgca aaagcatcca cttcacacaa aacccctttt   600
gttgtgaata ataaaggaat ttgtttctat gattatcggt atatccgtcc atcttatggt   660
acgcaacaat ttattatctc caactttatt tccgggacag aatacggaaa tgctttcgtc   720
tcgcatgata atgaagatat gtatattacg gctattaata gttctttaga gagggaaaa    780
tctaatctga ttgtcagtaa attaaaagaa aacaaagaga tacagagtga agttatggcg   840
gaattgtcat ttgatggtat ttggcagtcg caaatgtccg acggcataca ggtgaaatgg   900
aatgaccgta ggggaacaat gcttattcac ttgtatcgtt acaatgaatc aacctatgaa   960
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ctggatatta tcgcactgga agattacagt actaagacat tagacttatc aggtaaaggc  1140
attgatttcc gctctatttta tacaatggag ggttctgatt gctatatttt tgcaggattt  1200
caatatagta cgagccaatc tgttatcgga acaattgata tagatggtaa tattgaaata  1260
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<210> 2714
<211> 264
<212> DNA
<213> B.fragilis

<400> 2714
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gtgaaatgct accataaaga caagatacca agggcattta ctcttaggaa gaaacctgga      180
aatctcataa acattcggaa taacacttt aaaaagagtc ctccaaactc tgttctagaa      240
gaaaaagcag ttctttttcc ctaa                                           264
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<210> 2715
<211> 186
<212> DNA
<213> B.fragilis

<400> 2715
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atcaatgtca atcccatttt attcatatta gtttttattaa attgttattt tattattgtt       60
actaatcggg aacatggcaa gcaaaaaaat attagactag taatgtttca atcttttttac      120
ggggagaata agggatttgc tttgcataac caattctcat tattaatgtt gggtgttcct      180
tattga                                                               186
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<210> 2716
<211> 1902
<212> DNA
<213> B.fragilis

<400> 2716
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ttgggtacca agaagaagaa aataaaaatg acaagtaaag caacatatat aggggatgtt       60
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acttatgtaa atggcgaagg atacaagatt ggtcaagtgg gttctttcgt taaaatacct      180
ttgggatata ctgatttatt tggtatagta tctcaaattg gggctaatgc agttccagaa      240
gctcaaatag aaagtcagcc tcatgggaat agatggataa ccattcaatt aataggagaa      300
ggacaaagaa gtggagggtt tgagcgagga atttctcaat atccaactat tggagatgag      360
gttcaccttg tatcagaatc tgatttaaaa catatttatg gtaacattga caaaacaaac      420
cttgtaaata tagggcatat tgctggagca gaatctattc ctgctttgat tgatattaat      480
aaattaataa caagacactc tgcgattgtg ggatcaacag gctcagggaa atcaacaaca      540
gttgcaggac ttcttgatgc tctatctaac aataacaaat acccagcgtc tcgtatacta      600
atttttgaca ttcatggaga atacagtaaa acttttaaag actctgctaa tatatacaaa      660
ataaacccag aagaaacgag tgagcctaat attaaatcat tagacattcc ctactgggca      720
atgagtttcg atgaattaat atctttgact ttgggcgata ttgatgaaaa agaaaaggct      780
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aatgaaaatg ataaaattgg ttggagaaat gagacttcaa taagtgacaa tgattatacg      1860
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<210> 2717

<211> 858
<212> DNA
<213> B.fragilis

<400> 2717
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attctgggaa ccggacttgg cagtctggca aacgaaatta ccgaaaagta tgaaataaag     180
tacgaagata tccccaactt tcctgtgtct accgtagaag ggcacagcgg taagcttatt     240
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ggttactcta tgaaagaagt gactttcccg gtacgcgtga tgcgtgaact gggtatcaaa     360
acattatttg tgtccaatgc cagtggcggc accaatcctg aattcgaaat cggtgatctg     420
atgattatca ctgatcatat caactatttc cccgaacatc cgttacgtgg taaaaacatc     480
ccgtacggcc cccgtttccc ggatatgagc gaggcatacg ataaggaact gatccgcaag     540
gcagatgtca ttgcagcaga aaaaggcatt aaagtacagc acggaatata catcggtaca     600
cagggaccca cattcgaaac acctgcagaa tacaaactgt tccatatctt aggagctgat     660
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<210> 2718
<211> 1923
<212> DNA
<213> B.fragilis

<400> 2718
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cgcttcaaag ccgaccggcc gggcaagcag aaccttactt tcagttactc ccccaatccg     180
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gatgtactct caaacagca ttacgacgac tacgccgctc tgttcaaccg ggtaaaacta     540
caactgaacc cggacgcaca aagcgccaac ctgcccaccg gcaaacgctt gcaaaactac     600
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aacgtagacg gtccgtggag agtggactac cataacaaca tcaacataca gatgaactac     780
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atcttctcaa aagcaggcga accttgtacg gtgagatacg gagataaaac tctctctttc    1860
aaaacaagta aaggaaaagt ttataaattg gctttagatg cagaccgact ggtcatcaaa    1920
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taa   1923

<210> 2719
<211> 2067
<212> DNA
<213> B.fragilis

<400> 2719
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ccggcagaca tctatgtccg ctatctgcga ctgaaaaaag aagatgtact tttcatcgga   180
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aagttgctcg atacaaagaa agcaaacgaa gaggctaatt acaaagccaa accgatccgc   1740
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acacgcacca tcgtcagcgg cattgcacaa cattacaaac cggaagagct agtaggcaag   1920
caagtttgct tcatcgccaa tctggctcca cgaaagctga aaggtatcgt cagcgaaggt   1980
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gtgaagccgg gaagtgaagt gaaataa   2067

<210> 2720
<211> 204
<212> DNA
<213> B.fragilis

<400> 2720
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tatattaata gttttttgct gcatgggttg tcagcgaaat acattgcgag gtcctattcc   180
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<210> 2721
<211> 195
<212> DNA
<213> B.fragilis

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cctccgagag ccaaggcatc cgccatgcgc ccttatttac tttcttttat cgccagattc   180
atctcctttt cttaa                                                     195


<210> 2722
<211> 189
<212> DNA
<213> B.fragilis


<400> 2722
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<210> 2723
<211> 345
<212> DNA
<213> B.fragilis


<400> 2723
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agcacgggta ggttagagca tatccctgtt gaaggcagaa ttggtatttg tgatggtacg   300
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<210> 2724
<211> 2049
<212> DNA
<213> B.fragilis


<400> 2724
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caacttttct tattcggtga gaaagacaaa caggctccga gagccgatgg tgacggcact   1260
atgcccgagt tcggcgaacc tgctctcttt gaattgcagg aagtcagaga cttgacggga   1320
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aaacgtggtg gagtggacac agactacgaa aagaccatcc gcaatacgga tatgagcaag    1560
gaagtagact gggcaaaata ctccggttct acattggtag acgcaacttt attcaatatc    1620
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cgtccgtact caatcgtcaa agcaaacaac gctgtatttg acggttatac attcgctaag    1920
gcatactact tgtatccggt accgatacgg caaatggagc ttttgtctcc ggaccgttca    1980
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<210> 2725
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<212> DNA
<213> B.fragilis

<400> 2725
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atgggagaag atacggtaaa atggtttctt aaagatagcc gatatacaat agtgacttat    300
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gataaaaaag agatggttca tcttttggag tataatgatt tttcgtatcc tgtgtgtctt    480
gatataaaag gctctttcga taaaataaat aaaatcccat ccaatttggc ttttcaaact    540
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gaaaagaag caatgttgat tataaaaaat cttggagtgg tttccttgac ggttgaaaat     780
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gatagcttgg tgattaaaat aaagtataaa gctgaatctc cgggatattt taataaagat    900
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caataa                                                               966
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<210> 2726
<211> 1050
<212> DNA
<213> B.fragilis

<400> 2726
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tggggatatt cattcgtcta ttcactacaa gaagtacgtg atatttattt agcaatacaa    180
aagtataaat atatcaatct aggtcaattt acggatgaat acgttattcc tcatattccg    240
aatgttggag tagcttggaa taaaaggcgt gttttagaaa tactaaatgc tttagtcaat    300
tttggtttac tcactcctca atatgaatta acaaatacag tgcacctatt tgaagattat    360
caaatagga aacccataga tgacaatgat aacaaaatat ttagacgtat attttttttcc     420
taccatcgtt ttagagattt ttcctctcta tatttaccta ttgataataa ttactcaaat    480
atagaagagg tattactcaa taattcaatg ccattattta gtttcggtag tgaaaggaaa    540
tacactgatt cattttttaa aacgttcaaa gataatcctg atatatatta tataccagaa    600
tataataaag ataatgagaa aaatagtggt tgtaagatgt tttgggatgt tttcatttct    660
tggggagttc aattgaaagt tatggaaaaa ttcaattcgt caattttaa ctataaatta     720
tctaatggaa aaacttttc atgtagttat ttcttgtctt cagacaactt attgatgcct    780
tcactaattg attttataaa aaacaattat cctgaaagaa aaaatataga tttatccttg    840
cttatttta ctctttgcac tatatttaga aaatcgctct cttctactaa agattatatt     900
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atagaagagt acaagcgaaa caaagaatat atcagcctag ttaggacttc cgaggttttt   960
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tttatttcac atttaattat aagattatga   1050

<210> 2727
<211> 1074
<212> DNA
<213> B.fragilis

<400> 2727
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ctgtatggga cagatgcttt gtacgatcgt atagatacga tttatgcaga gaaaggcaag   180
ttcagctaca acctcaatat cgattctaca gtaattgaca cactgactac agccgtactc   240
ctgataaacg gtcatgtaga gtatcctgtt tttttggata aaggaaatca aattacgatc   300
aaaggaaata ttgatgatct cagctatctg gacataaatg gcaatgaacc aaatacgagt   360
ttgagccttt ttatgaaaga acaaagaggc ttaggcagtg catcagacaa aatgatgcag   420
gagaaggccg aaacatttat ccgccaacac aactcttcat tggcaagtgt ttatctgctg   480
gataaatact ttgtacagac tccgcaacca gactatatca aaataaaaga ataactgag   540
gctatgacag gtgcactcct cgaccgcccg tatatcgaga atatcagcga ctacatcgat   600
caattggaaa aagtgactgt cgggaaatct gctccttact ttagtttacc caatgaaaaa   660
ggcgagaaat tatcacgttc tgccgagaga ttcagaaata gatatctcct gcttaatttc   720
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gaatataaga aaaacaaaaa tttcgtaatg ttgggaatat cactcgacat agatagagaa   840
gcatgggaaa cagccattaa gaaggatact ttgagctggg atcaagtatg tgattttaca   900
ggacttagtt cggaaacagc caaacaatat gccatactga cgcttcctac taatatactg   960
ctctctccca ccggcaaaat tctagcaaga gatatccagg gagaagcgct taccgataag   1020
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<210> 2728
<211> 297
<212> DNA
<213> B.fragilis

<400> 2728
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ggtttcaatc cgatttccaa agctttctgc agcacaaagc gcgtttgcgg catcgggcct   180
tcaaaagcat caaccaacag aatgcatccg tcggccatgt tgagcacacg ctctacttcg   240
ccaccgaagt cgctgtgtcc cggagtatca ataatattaa tcttagttcc gttgtaa   297

<210> 2729
<211> 318
<212> DNA
<213> B.fragilis

<400> 2729
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atgctacaag taaatgaaac agatacatct gttaaagcca tgaaatcatg gataatgcag   120
caagaaacaa tacaaccatg taagaagcac catcttcaca tcatagggaa taaaacttgt   180
gacttggaat tggaggatgt atatactctc tgtaaaatca tacaggctgt tgttgcagaa   240
ccactctctt gggatattat tgaaagggtg ctaagtgaaa aagatagcaa tcttgtggca   300
agcctgttgc tctattaa   318

<210> 2730
<211> 558
<212> DNA
<213> B.fragilis

<400> 2730

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cgcttaatga acgaaaaaga agcaattatt aaactaaaga cctgcaatga taaagccgcc      60
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acctctgcgg tcgatgtgga agaaatcgtt caagaagttt ttattaaaat ttgggagaat     180
cgggaagctt tggatgaaga acaaaatttt gccggatact tatttatcac gatgcgcaac     240
cttgttttca accgttcccg taagaatctg aatgaaccct tctaccaact atcagtgata     300
gaagctgtcg aagaatcata cgatatagaa gaagaattgg acgcagccaa tctgcgcaca     360
catatctcag cactgatctc aatgctgcct ccccggcagc aggaagtgtt tcgtttaagc     420
agggatgagg aactttctta tcgcgaaatt gcagaaagac tacaaatatc agaaagaaca     480
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<210> 2731
<211> 630
<212> DNA
<213> B.fragilis

<400> 2731

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ttagcttatg aagattctat aaaagaaagc agtcatcgaa ttgagcggga aattagaaac     180
tatgagttga ggactaatgg aaaagtaatg aatcctttat tcgaggtttt tgatactaat     240
ggggataaaa gaaccctctc aaagattatt gatggaaata agttcgtgtt acgttactct     300
gaattaaact gtaatacttg tgtaaataag caaatagaat tattgaatct gtatgttgac     360
tcaataggtg ttgatcatat tatattgctt acaaattatg atagtaattt ctatatgaag     420
cagtttaaaa gaatttcaaa aataaaaatat ccaatattta atataggtgc taatctgaat     480
gaatgtattc cggatataga gcggccttat tttttataaa ttgattctaa ttttagaata     540
aatagcgtat atgttcctca aatagatgaa agtaacgtaa caaaaacata ttttcaccgg     600
attttacaat attattttga tattccttaa                                      630
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<210> 2732
<211> 876
<212> DNA
<213> B.fragilis

<400> 2732

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acaacataca tggcagattt cctgaaaggt gtgaacgacg ctgccaataa aacaagcaaa     240
aaggatcagg cttatctgct cggcttgcag atcggatcac aaatggcagg tcctcaggct     300
atcaaaggca tgaaccacca gttatttgct gatgattcaa ctatgactgt taacaagggc     360
gatattcttg caggcgtatt tgcaggcgta ctcaataaag atatgaagat gcgtcccgaa     420
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gaattcgaaa gcacttacga acgtaaggaa ccgttcgtga ctaacgtcgg cggagttatc     720
aaaggttgga ctgaagccct gaaaatgatg cctgtcggtt caaaatggga actttatatc     780
ccgcaggaac tggcttatgg ctcaagagac atgggacaga tcaaaccgtt ctctacactg     840
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<210> 2733
<211> 1515
<212> DNA
<213> B.fragilis

<400> 2733

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gacaagaatg ggatgttact aatttctgca aactacaatc atggagcttt gcatgggcta    240
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ggagagaaaa atggagtcga aaagaattat aatctaggaa gtagcgggca ttatttgata    360
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gaaaaactaa atgataatat tatctcattc tatgcggaag atggcaaaac tatcacacaa    660
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<210> 2734
<211> 1401
<212> DNA
<213> B.fragilis

<400> 2734
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cttcaacaag tattagggca ttacgaaggt gattcgttga aacataaagc tgcctgcttt    180
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gaaacatag atctggcttt tgaagtctgg caaaagtatc cttggtgcaa acaattatct    360
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gaagtgactt ctaaagattc tcgtacgctc gactttggag aggtacctgt ccggtctttg   1320
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<210> 2735
<211> 360
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<212> DNA
<213> B.fragilis

<400> 2735
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tttagctatt gcctaccagt agaatacaaa atcaaatcct cattttggga taaggaggca   180
ggaaaagcca tagaagatgc caaaaggaat accgagttga agggcaatcc catgctgcaa   240
gtcgcattgc gtaacatcaa taaggagatt gaaaaaacga ccaacacctt aattaaacaa   300
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<210> 2736
<211> 1113
<212> DNA
<213> B.fragilis

<400> 2736
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gaaacaattg caacggatgc acaacagaca ttatctttta atcacgaacc tttatccatt   180
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gaagtttacg attacaaaaa cgacagcatc ctgcgcagtt tctacgcctc caatttcccc   660
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tgggccatgg caatagaggg ggaagaccct tcaacattcc gctctcgcct ggatatcttt   960
gactggaaag gcaattatct atgtaaagcc catctggaca aatgggtttc ctctttcagc   1020
atagacgaaa gaaaccaaac catgtatgct gtaactgcag atgacatgct tgttcgatac   1080
aacatcaaag aactactgga ccagcttccc taa                                1113
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<210> 2737
<211> 1068
<212> DNA
<213> B.fragilis

<400> 2737
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caacaggagg ccgcaaaact gcaaacagag aacgacactg cacgttatgc ggctttacaa   540
agtcaactga tccccatttt ctgtttaat agtctcaata cgctgattgc tgaaatagaa   600
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ggatatcttg cggtgagtaa ccccatacag cctaaaaaaa gtcatgaatc gccgggtgta   960
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gggctgaaga acctgtccaa tcgttgccag ttgatgctcg gcaaagagat aattgtccac   1020
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<210> 2738
<211> 1143
<212> DNA
<213> B.fragilis

<400> 2738

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attaagtttc ttaaagatgg aactttgaca aaagaagatt tattagaatt ttatcaagga   1080
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<210> 2739
<211> 1155
<212> DNA
<213> B.fragilis

<400> 2739

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atttatgccc tacccattga agtagaaata ttacaaaatc aacaagataa ttttaaccaa   1080
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<210> 2740
<211> 3264

<212> DNA
<213> B.fragilis

<400> 2740

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aatgccacta tgggtaccat cactgacctg gagggaaaat tctctatcga tgcacccaaa  300
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<210> 2741
<211> 1917
<212> DNA
<213> B.fragilis

<400> 2741
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caaaatattc gaaacattgc aattattgcc catgttgacc atgggaaaac gactctcgtc     180
gataaaatgc ttttagccgg aaacttgttt cgcggcaacc aaacaagcgg agaattaatt     240
ctggataaca acgacttgga gcgtgaacga gggataacga tcctctctaa aaacgtttct     300
atcaattaca acggaactaa gattaatatt attgatactc cgggacacag cgacttcggt     360
ggcgaagtag agcgtgtgct caacatggcc gacggatgca ttctgttggt tgatgctttt     420
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ccgattgttg ttattaataa ggtagacaaa ccgaactgtc gtccggacga agtacacgag     540
atggtcttcg acctgatgtt cagcctggat gctaccgaag agcaacttga ttttccgaca     600
atctatggtt cggccaagaa taactggatg agtacggact ggaaagagca gacggacagt     660
attgtgcctt tgctggattg tattgtagag aacattcctg ctccagagca attggagggt     720
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gatcgtggta aattctttat tttccctcag gaagaggtgt atgcaggtca ggtagtgggt    1680
gagcatgctc acgaaaaaga tttggttgta aatgtgacta agtcgaagaa gttgactaat    1740
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gaagaggcct tggaatacat taaggaagac gaatatgtag aagttactcc gaaagcaatg    1860
cgtatgcgta aggttattct ggatgaaact gaacgtaaac gcgccaataa gagctaa      1917
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<210> 2742
<211> 1308
<212> DNA
<213> B.fragilis

<400> 2742
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gattataacc atgacttgaa agctgcggac aaaaatatag ctgcaagtat cgaattggag     180
aaagcggcac agaaggatct acgccctaaa ctgtcgggag aggcgaattt tcagtatacc     240
ggtaatcctc ttcaattgaa tatcgacttg ccttcgatgc agactccgtt ggctttttgaa     300
ggaagaaata tgaaatacgg tgcttccctc tctttgttac aaccggttta tacgggtggg     360
cggttattgg aaagtatccg gatggctaaa catcagcaaa gtctggcaat acatcaggca     420
gattatttcc gttccgcagt atcctatcag acggatatgc aatattggaa cactgttgcg     480
cgtgcagaaa tagtccgtgt aactacggaa tatcgcaatt cggttgccac cttctcccaa     540
agcatacggg agcgggtgga agcaggattg gttgatccac aggacttgct gatggcggag     600
gtaaaactga atgaagcgga ataccaactg ttgcaagcaa aaagaaatct ggaaacagga     660
cgtatggcac taaattctct gattggcgtg gaacttcatg ctccgactga aatagaagat     720
acgatttctg ccgttagggc ggataaagat ctgtggggtg agggtgaaat agatcgtccg     780
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gaacttaaga tggcctatgc ccggattaaa atagcagaaa gttcgaaaaa attaacggat    840
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gatttccgtt ccgatttgga tcccaattat gccatttatg ccaaagtatc cgttcccttg    960
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tcattgtcgc agactatgga acaggtgcgc ctcaccgaag gctcactgag taaagccttc   1140
gaaaatgagc gtatggcatt ggagcggtat actgaaggga aggcctctgt aatagaggtg   1200
attgaggccc aaacgtaccg gcaagcttcc caactgaacc atgtacaggc aaaagtctcg   1260
gcacaagggg cttattcgga attgatcaga gctttgaata aatattaa              1308
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<210> 2743
<211> 1077
<212> DNA
<213> B.fragilis

<400> 2743
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atggaagcga agcaagatac ggattctctg tttgatcgaa cttcggaatg tgatctaagt    120
attgaagagt atcttcactt tttaagaaac gcattgcata ttgttgattt atctatgcgt    180
atgaaggtta gccaacaaga tatagatgag ttctttatag aattctatct taaacatgaa    240
aattcatata aaagatcaga gggctttgct gcaaagttaa tatttggctc tattctgcct    300
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gaaattgaca ttgaaaaata tggtatggct agtggaaacg gatacgccca agagtattat    420
gacaaaaata aaataatcga atataagtat aaatcattgc taaagatttt ttctgatcct    480
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<210> 2744
<211> 1179
<212> DNA
<213> B.fragilis

<400> 2744
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cttcgcaaac gcctggggtt ggaaatagcc ttaaagataa gaaataacct cagggaattg    180
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caagtcgtag attcgattac gccgcacgtc aatcctaatg aggttaatat catcataacc    360
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ggttatccat gggggattgt gtccaatggg ttgtatttga cccgcgaacg gctagatagt    480
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gtgcatgaac cggaactgac atgggatgtc gtgacttgtg tcaatcggaa aaactactct    660
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tgtagctttt tccgttattg tgagggcaat ggtatgcatt tgcacaatga caatggagac    1140
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<210> 2745
<211> 1491
<212> DNA
<213> B.fragilis

<400> 2745
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acagccggtc cgctattgaa tctgcaccgt ccggcctatc cggaaagctg gttcaacggg    180
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ttcaccaaag agtggcatgc ccggggatgt aaaataaaga tatactatac gctgcgcgaa    540
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gcatggttgg ggatgcaata tggaatgacc gtccgttatc catggtacac cgaaggagtc   1140
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aaaaccgtaa aactgaatat agactggaaa cagatcggcc tgaacccaca aaaggcaaag   1380
ctgacaacac ccgaaatacc ggacatgcaa caggcgcatg aatggaatgt agacacaccg   1440
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<210> 2746
<211> 183
<212> DNA
<213> B.fragilis

<400> 2746
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cagtactggt tcgctatcgg tctctcggga gtatttagcc ttaccggatg gtcccggctg    120
attcacgcag aattcctcgt gctccgcgct actcaggata ccactacgct tcggttacct    180
tag                                                                  183
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<210> 2747
<211> 732
<212> DNA
<213> B.fragilis

<400> 2747
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aaaggaaaaa gcataacagg agaaagagat cgggaagcta ccgaaaagcg gttgctagat    180
actatcggta aaatgattgc cgaagatggc ttcgagaaaa tcggcattaa cgctatagct    240
acccaatcag gtgtttcaaa gatattgata taccgctatt tcggttcggt agagggactt    300
atggctgctt acatacggca acatgatttt tggatcaatt tccctcttga atatcccagc    360
cgtgaaaaac tccctgcatt cgtgaaaagg atgtttcaag gacagattga gcaattaagg    420
```

```
aataatccta ctttgaaaag gctttatcgc tgggaattat cttgtaataa tgatatgatt    480
gtaaagctaa gagagcaacg ggaaaaagta ggaatagacc ttgtaaagaa agtaagcgaa    540
ctaacaggac atccccaaaa ggaaattgca gcaatagcct ctatgctgac agcatcaatt    600
acttatctgg taatgctgga agatttttgt ccggtttaca atggcattcc tctgaatgag    660
aattcaggat gggaacagat aaacgaagga attgaaattt taataaataa ggtatttcaa    720
gatgaaaact ga                                                         732
```

<210> 2748
<211> 321
<212> DNA
<213> B.fragilis

<400> 2748

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ctaaagcatt gttgtatgaa taaaaggaa ttaataagca ccatcgcaga aaaagcggga     60
ctgaataaaa gtgaatcccg aaagttgctc aatgtaataa ttggcattgt cattgaagaa    120
atgaaaaaag atggaaaact gcttcttatg ggattcggta cattttcggt gaaacgaaag    180
ccagcaagga aagggatgaa tcccagtaca tttgtgccta tcgagatacc tgctaaaaaa    240
gttgtaattt tcaaacccag tgattgtcta aattctttgc tgaaaaagaa aaggggaaga    300
aagcgaatcg tcagaaattg a                                               321
```

<210> 2749
<211> 381
<212> DNA
<213> B.fragilis

<400> 2749

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cgggtgtcct gtggcacatc ccaggtttac caaccgaccg tctgccaaca gaatgatact    60
gtgaccgtca gggaaataat agcggtctac ctgtggcttg atattgacac gtttgatacc    120
cggataatgt ttcagtgcat ctacctggat ttcattgtca aaatggccga tgttgcaaac    180
gatagcctga tctttcattt gttccatgtg atcgatacgg atgatatcga tattaccggt    240
agtagtaaca aagatgttac cttctttgca ggcgtcttcc attgttacta cttcaaaacc    300
ttccatggca gcctgcagtg cacagatagg atcgacctct gtaaccagca cccgggctcc    360
gtaggaacgc atagagtgtg a                                               381
```

<210> 2750
<211> 1260
<212> DNA
<213> B.fragilis

<400> 2750

```
aaagatagat gctttgttga agtgaacctc cccttctaca tagcccggcg atatcttttc    60
tcaaagaaaa agcacaatgc catcaatatc atttctgcta tttctgtgtg tggagtggca    120
ttggctacga tggcgatggt gtgtacactt tccgtattca acggttttca ggatacagtg    180
gccgatctgt ttactgtatt tgatccggaa ctgaaagtga cgattgccga agggaaagtt    240
tttgatgcac aggaccctcg tattcaagct atccggcaga tgccggaagt agatgtgctg    300
actgaaacac ttgaagagaa tgcgatggta caatataagg accgccagac gatggctgtc    360
ataaagggag tacaaaacaa ttttgagcag ttgactgcga tagatagtat cctttatggt    420
gcaggtgagt ttttgctgaa tgattctatt gttgattacg gggtgatggg aatagagctt    480
gtctctacat gggggactgg aatcagattt gttgatccgt tgcagatata tattcctaaa    540
aggagcggaa aggttaatat ggcgaatccg gctgcttcct taatatgga ttatttgtat     600
tcgccggtg ttgtgtttgt ggtcaatcag cagaaatatg acggacagta tattcttact     660
tcgttggatt ttgcccgacg tttgcttgac tatactaccg aagtgtctgc aatagaacta    720
aagttaaaac ccggctctga tctttccttc gtcaaagcaa agattaagaa agaactggga    780
gatgattttg ttattcgtaa ccgctacgaa caacaggaag atgtatttcg tatcatggag    840
atagagaaac tggtttcata tttgtttctc actttatct tagtgattgc ctgtttaat      900
gtgataggtt cgttgtcgat gcttattctg gataaaaagg aagatgtgga tacgcttcgc    960
aagcttggag ctaacgatcg gttggtttcg cgtattttcc tttttgaagg atgtatgatt   1020
tcctttatg gagccataat cggaattgta ctcggattgc tgttgtgctg ggttcagatg     1080
acgtacggga ttatttcatt gggtggaggt agtgctgcag gaaattttgt agttgatgct   1140
```

```
tatccggtca gtgtacattt gtgggatgtc atcgtgatat ttattaccgt ttttgctgtc    1200
ggattcttgt ccgtctggta tccggtaagg tatctaagta aacgtttact aaaaatgtag    1260
```

<210> 2751
<211> 195
<212> DNA
<213> B.fragilis

<400> 2751
```
atctctccgt gtcagtatgt catacggcct cattgtgtgt taacgtatga tatttggctg     60
tacagccaag gacggaaagt gatgaaaggt aggttaaggg atgatggaat gttggacgat    120
atattcgttt attcaaggat tttggttaaa tttgtaaggc cttctttcac gtttcttttg    180
agaggtgggg agtga                                                     195
```

<210> 2752
<211> 315
<212> DNA
<213> B.fragilis

<400> 2752
```
ccgatggagt ggttgaatga atatcacctg tcagggctgc tcattggtat ttgcacgttc     60
ctgattatcg gcttattcca ccccgttgtg gtaaaagctg aatattactg gggaacgaaa    120
tgctggtgga ttttcctgat attaggtatc gcgggagtag ctgcttcgtt gagcacagac    180
aatatactcg tttcgtcttt attgggcgta ttcgctttct cttctttctg gaccatcaaa    240
gaagtctttg agcaagaaga gagggtgaaa aaaggttggt ttcctaagaa tcctaaacga    300
acatacaagt tctga                                                     315
```

<210> 2753
<211> 1461
<212> DNA
<213> B.fragilis

<400> 2753
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attatgttgc tgaaacagac taaaatcgta gcttccatct cagacagacg ttgcgatgta     60
gattttataa aagagttgtt tgatgcaggg atgaatgtgg ttcgtatgaa cacagcccac    120
gccagtcgtg aaggttttga ggcgttgatt gccaatgtgc gtgccgtatc caatcgcatt    180
gccatcctta tggataccaa gggaccggaa gtgcgtacca ctgccaatgc ggaccccata    240
ctttatcaga tcggtgagaa agttaaaatc gtaggagatc ccgatcgtga gactacccgt    300
gaatgcattg ccgtttcata tccgaatttt gtgcatgacc tgaatgtagg ggggactatt    360
ttgatagatg atggtgacct tgaattgcga gttattgata aaacaaccga atacttactt    420
tgtgaagtcc agaacgaggc aactttgggg agccgtaaga gtgtaaacgt tccgggtgtt    480
cgtatcaatc tcccctcttt aaccgagaaa gatcgtaata acatccttta tgccatagag    540
aaagatatcg atttcattgc tcattctttt gtgcgtaacc gccaggatgt gcttgatatc    600
cgtggaatac tggacgctca caatagtgat atccgcatta ttgccaagat cgaaaatcag    660
gaaggtgtcg ataacattga tgagatcctg gaagttgccg atggagtaat ggtagctcgt    720
ggtgacttgg gtattgaagt accgcaggaa cgtattccgg gaattcagcg tatgttgata    780
cgcaaatgta tccttgccaa aaaaccggta atcgtggcaa cacaaatgtt gcatacgatg    840
attaataatc cacgtccgac tcgtgcggaa gtaaccgata ttgccaatgc aatctattac    900
cgtacagacg ctttgatgtt gagtggtgag actgcctatg gcaaatatcc tgtagaggcc    960
gtaaaaacga tgactaagat tgctgcacag gctgagaagg acaagttgga ggagaatgac   1020
attcgcattc ctttggacga aaacagtaat gatgttacag ctttccttgc taaacaagct   1080
gtaaaagcaa ctactaagct aaagatacgt gccatcatta cggatagcta tcaggggcgt   1140
actgcacgca atttagcagc tttccgtggt aaatatccgg tacttgcaat ttgttataag   1200
gagaagacta tgcgtcacct tgcactttct tatggtgtgg aagcgattta tatgcctgaa   1260
cttgccaacg ggcaggagta ctattttgca gctctgcgcc gtttgttgaa agaaggacgt   1320
ttgcatccaa ctgatatggt gggttatctg agtagcggta aagccggaac gcagacttct   1380
ttcctcgaaa tcaatgtcgt ggaagatgct ttgaagcatg ccggtgatag tgtgttgcct   1440
aatagcaacc gttatttata a                                             1461
```

<210> 2754
<211> 1212
<212> DNA
<213> B.fragilis

<400> 2754

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ttatttatgc ttatgaaaac aagaatgatc tatcacagtt tggcaatctg ttgtctattg    60
cctgcttttg cttttacaac cggtgaaaac gacccattta tcaaatcgcc tactgttgcc   120
aaactaacaa atacccctaa cggtccgcta atcagttgcg atctgaaggc actaaaagat   180
actgtaaact tcccattgag ccagttaaca gaagaattac agattgtaaa attagacaat   240
cgggacgaag cacttattgg cggctggata cgaacaaccg tcggagaaaa atatatttta   300
gtgagcaata acaaacaaac tccttataaa ctattcgacc ggacaggtaa atttatcacc   360
aatatcggat cttatggaca aggcccgaat gaatatctaa acacttatgc cgaacaactg   420
gacgaagcca ataatcgcat ctatatccta ccctggcaaa gcagcaagat attggtattc   480
gacttgaaag gtaatgcatt ggatcctatc cccctgtgcc tgagagttcc taaaggaaaa   540
ttccgggtaa acacagctaa gtcagaagtc acagtcacag tcctgccatt ccctaaatgg   600
ccggcagtag tctggacaca agatttaaag ggtaaacgta aaaactttgt agcaccggga   660
agccttgcca tgccacaaga cttcagtaac gaagtgtcaa tggggaataa cacagctgcc   720
tacgatgtga tgttaatgaa aatcatgcca caaccaagtg tagataccct ctaccattat   780
aatgccgcca gcaacaaact ggaaggacgt ttcaccgtca agtatccttc aaatgataaa   840
atccctggc atgcatatta tgaaatccct aaatatttca tcggtgatgt ctctttccca   900
atacaaatag acgaaagtac attctccggc tctaaaccgg cttattacat ggttgacaaa   960
aaacattgc atggcaatta tgtgcggctt tacaacgatt ttatcagtac cccgagtcag  1020
acgatctatc cttcgttcaa caatggatat tatgtcacta atatggagcc tatggcattg. 1080
aaagagatac tagagaaaga agtaaacaaa aaaggactga ccgcagataa aaagaaaaag  1140
gtacagaact tgatcaagac gttaaatgac aatgacaata atattgtaat gttcgccaaa  1200
ctgaaacaat aa                                                      1212
```

<210> 2755
<211> 585
<212> DNA
<213> B.fragilis

<400> 2755

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agatacatcc gggcttacaa cagctttaca cattgtaaaa cgcataactg taacgatcca    60
atgaaaaaga ttattctact aattatagca agctatactg ttgcaatggc gacagcccaa   120
aagaaagaac acttcacttt tgcaacaagt gtaggaacag gtattgacat gagcgagcca   180
gcagctactc cttttttcatt acaggttctg ggttattatg ccatcaacaa acggttctct   240
gtcggtgtcg ggacaggatt atctatttat gagaaagttc tgatcccgtt atttgccgat   300
gcaaaatttt taatcataaa acctagaaag ttcactcctt atatagaatg tggcgttgga   360
tatagttttg caccgaataa aaatgctaat ggaggttttt atctgaatcc gtctgctggg   420
gtagaatatt ctatttgtaa aagtaagaag ttattcttgg ctttaggata tgaatcccag   480
aaacttgaac gactgaaaac gcaaaagcaa tcattgttta cagccgagtt tacagagaag   540
ctaagccata atgctatttc aataaagatt ggattcatgt tttaa                   585
```

<210> 2756
<211> 231
<212> DNA
<213> B.fragilis

<400> 2756

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gcatttaccc ggaaagaagt aagcattttc ctaaaatgtc cttatgttcc ggaaatatct    60
cctattgttg tccggaatat ctcctattgc tatccgaaac gggtcttggc ggaagaattt   120
ttcctcccgt tgaccattgc agacaaagcg ttgtacactg acagaaaagc aggaaggaga   180
ccggaaaagg aaccatttac cggcagaacc gtcattccac cttcaaagta a             231
```

<210> 2757
<211> 1545
<212> DNA

<213> B.fragilis

<400> 2757

```
aaacacgtgc taataaaagt attcggagcg gctgtacaag gcattgaagc aaccctcatt      60
acaatagaag tcaacagttc acgaggatgc atgttctaca tggtaggtct tcctgattca     120
gccgttaaag aaagccatca gcgcattctg tctgccttac aagtgaccgg ctacaaaatg     180
ccaaccagca atatagtcat taatatggct ccggcagata ttcgcaaaga gggttcatcc     240
tatgatctcc ccctggccat tggcatgctt gcagctggcg aaacaatctc atgccagaag     300
ctatcacgtt acatgatgat gggtgaatta agtcttgacg gaactatcca acccatcaaa     360
ggagccttac ctatagccat caaagcacgc gaagagggat ttgacggatt aatcgtacct     420
tcacaaaatg cacgggaagc ggcggtagtc aataatctgt cagtatatgg agtaaataat     480
atacaggaag taattgagtt catcaatggt aaacgtgaac tgacaccaac catagtcaat     540
acccgtgaag aattttatgc gtgtcagagt gattttgaat acgatttgc agatgtaaaa      600
ggccaagaga acgttaaacg ggcacttgag gtagcggcgg caggaggaca caatttaatt     660
atggtaggag cccccggaag tggtaaatca atgatggcca aaagattacc ttccatactc     720
ccccccttat ccttgggaga aagccttgaa acaaccaaaa tacattcggt cgctggtaaa     780
ttaggacgca attcctctct gatatctcag cggcctttca gggccccgca tcacaccatc     840
tcacaagtag cgatggtagg aggaggcagt ttcccacaac cgggagagat cagcctagca     900
cataacgggg tactcttcct ggatgaactc ccggaattta atcgtagcgt gctcgaagta     960
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tatccggcca gcttcatgtt ggtagcctcc atgaatccgt gtccttgtgg ctactacaat    1080
cacccgacaa aaccatgtgt ctgcaatccg ggacaagtac aaaaatacct gaataaaata    1140
tccggccccc tgctggaccg aatagatatc caaattgaaa tagttcccgt accatttgaa    1200
aagatttcag accggcaaca gggagaatcc agcgctgcca ttcgccaaag ggtaatcaaa    1260
gcccgccaga aacaggaaga aagatttttcc ggctatccgg gaacttattg taatgcccag    1320
atgaccagca agcaactttc ttcttttgca caacctgaca cgaaagggct attactgcta    1380
aagaatgcca tggaacgcct gaatctttca gcccgtgcct atgatcgtat cttaaaagta    1440
tcccgcacaa tagctgattt ggaagaaagc gaacaaatac aacccagcca tttggcagag    1500
gcaatcagtt atcggaattt agatcgggaa aattgggccg ggtaa                    1545
```

<210> 2758
<211> 1215
<212> DNA
<213> B.fragilis

<400> 2758

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ggagatatac gtatgaaaaa ggttgttttt ttaggattag gctatatcgg acttcctact      60
gctgccgtgg ccgccggaca tggttatgaa gttgtaggtg tggatgttaa tccttcggta     120
gtagaaacca tcaatcaggg taaaatacat attgtggagc cggaactgga tcagattgta     180
aaagaggtgg tgcgaacagg taatctccgt gccgtttcga aacctgagca ggcagatgct     240
ttttttgtgg tagtgcctac cccttcaaa caaaaccacc gtgcagatat cacctatgtg      300
gaatcggcta cccgctccgt aattccttat ctgagagaag gaaacctgtt tgttatcgag     360
tccacttcac cggtatttac gaccgaacgt atggctgaag ttatttataa agagcgcccg     420
gaactgaaag acaaaatata catagcctat tgtcccgaac gtgtattgcc gggtaatacg     480
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gctaacaaac atccgcgtgt gaacatcctg caacccggct gcggagtggg aggacactgt     780
atagccgtag atccctggtt tattgtttcg gactatcccg aacaggcaca aatcatcaaa     840
cgtgcccgtg agacgaacga ttataaagct gattggtgtg ccaacaaagt aatggaagct     900
tgtcagcaat ttgtcgagaa gaacgatcgt gaaccggtag tggcttgcat gggacttgcc     960
tttaaaccca atattgatga tttgcgtgaa tctcctgcta aatatattgc ttcccgcatt    1020
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tttcatctga ctgactatcg ggaggcttat cagaaagcgg atatcgtggt atggctggta    1140
cgtcacactc cgtttgtgga gttgccccgt gaagaaagta aattggagtt ggacttctgc    1200
ggagtaagaa agtag                                                     1215
```

<210> 2759

<211> 1140
<212> DNA
<213> B.fragilis

<400> 2759
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atcttgcgcg gtttcgacct tttcttgttg gtcttcttcc agccggtatt gtggacattg   120
gcacatcagc tcaacctccc atggctgaac agtattcttt tccagttcga tcatgaagta   180
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tccatgccgt tctcgttctc caagtttaaa gacaatccgg acaaaggccc cgtttaccgc   300
aaaatcatca aacgcttcat ccttctgttc atcttcggaa tgattgtaca gggcaatctg   360
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atagactaca aaggacacag ccgcgggctg aactggttga aaatatacgg catgaactcc   960
attacggctt atatcttggg agaggtcatt aacttccgtt gcatagcagc atccgtcagt  1020
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```

<210> 2760
<211> 669
<212> DNA
<213> B.fragilis

<400> 2760
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tcatttaata gctctactac tatgaccgat cttaccattc tcatcgcagt catcgcattg    60
gcgttatggc caattgtatt cctgatatcg cgtatcctgc acgagcggaa caaacgtgcg   120
aagccatcgg gtgacactgc ctctgccgaa acggaagaag tgacagagga aatgactacc   180
tccgcactga tcatgagcat ccttcaacag ctcggttgcc aaccggaagt gaatgaagaa   240
aatcatatca gcttcaagta tcagggagac gatttccttg tcgcagccga agacggtctc   300
cggttaatca ttgtatggaa tccttggtgg gcgtccatca gtatcgacaa tcaggcatta   360
ccctatctga aagaaattat caatgcagtc aatatgaact cattagtgac tactgtctat   420
gcgctggacg aggatgaaaa aacatttggt atccacagta aatgccatat gctcttcgct   480
cccgaagaag aggagccgga aaaaagtttc accgacctgc tggacagttt tttcactacc   540
cacaatacta ttaaagaaaa cctgaaacaa ttgggtaacg gaatgccgga tatggaaaag   600
aaagaacgag taagaatcaa aggatttgct gcctacaagg acaacagcac ggaactgaaa   660
ggggaataa                                                           669
```

<210> 2761
<211> 264
<212> DNA
<213> B.fragilis

<400> 2761
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tacaagaaca ggccaaaggt taagacacat ttgcagaaac acttgaataa cgataagttc    60
cgtgagaact taatcacctt tggacaaaca aatttaataa acaaatcagc atggttcaga   120
aaggagcaag aaaagaatga catacataca gtaacctcta ataattatgc ttatgaagta   180
gaaaaaacga atcctttaca aaccttattc cggaaacaaa ataaaatccg gaatcctaaa   240
acaaactatc aaattaatgt ttaa                                           264
```

<210> 2762
<211> 267
<212> DNA

<213> B.fragilis

<400> 2762
```
tccctcccaa gagctcatat cgacggaggg gtttggcacc tcgatgtcgg ctcgtcacat      60
cctggggctg gagaaggtcc caagggttgg gctgttcgcc cattaaagtg gcacgcgagc     120
tgggttcaga acgtcgtgag acagttcggt ctctatctat cgtgggcgta tgaaatttgc     180
gtggctctga cactagtacg agaggaccgt gttggactga cctctggttt accggttgtg     240
ccgccaggtg cattgccggg tatctaa                                         267
```

<210> 2763
<211> 690
<212> DNA
<213> B.fragilis

<400> 2763
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cgtgttacaa gaatacgctg taatgacatc tgtaataacc attttctttt taatggttat      60
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cggaaaacga tattcactac catttccata gacaaggaaa cggcaacttt agtaggaaag     180
atatgcaaac gttattcact gaaaaagagt gaagttgtaa agttggcatt cggatatata     240
gataaggcac atatcaatcc atccgaagcc cctgaatcag taaaatcgga actggcgaaa     300
ataaataaaa ggcaggatga tattatccgg ttcatccgtc attacgagga aaaacaactg     360
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ttggaaactc tcattctctc acaactggaa gccaatcagg agagacaaac agccgtactt     480
aaaaagttaa gtgaacagtt ttgtaatcac gctgatgtga taaacaacca gtctaaacag     540
attaatgcac tttaccagat acatcaacgg gattataaaa agttgcttca tctaatacaa     600
ctctattcag agttatcaac ttgtggcgtg atggacggca aacggaaaga gaacctaaaa     660
gcggaaatcg tcaatttgat aaatatatag                                     690
```

<210> 2764
<211> 333
<212> DNA
<213> B.fragilis

<400> 2764
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accattaaaa gtaaaagtat ggaggtagta accattgaaa aaagaacatt cttgtatatc      60
tgcgagaggt tcacggagtt tgctaaacga acagaaagtt tgtgcaatac tcatactcag     120
gaagtcgaaa actggctgga tagtcaggaa gtgtgcctgt tgttaggttt tagtaaacga     180
acgctgcaat attatcgaag tagtgggcga ctggcttatt ctcaaatagg aagcaagatt     240
tattataagt cttctgatgt ggaaagaatt attgcggata gtgaaacaca aaatcaatca     300
ctcaaacaag ccacgcctta tgaaaagaac taa                                 333
```

<210> 2765
<211> 1041
<212> DNA
<213> B.fragilis

<400> 2765
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ttaaacaaaa gccgggatat aaccccgaca gccagcctga taaaagacga gttgataaag      60
gcacttaaga ataagaagga agaagaaaaa ccgatatttc ccgactttat atcttatatt     120
gactattaca tggatttatg caaacaaggt aagattctga atgtggatgg tacaaaattg     180
tcctctgcaa ctctggctac ctataaatcc acaagaaata ttctaaagaa atatgcagca     240
gcccgtaatg taacaatacg aatcgaggaa gtagattctg agtttcgtaa tgacttcata     300
aatttcctgt atgatacaaa acaccataat ggtgaataca aactgaactc aatcggtaaa     360
tttataaaga cgattaaggt tttcatgcgc catgcgttcg acaacaatgt tacctctaac     420
aatagtgtgt ttaaaaaaga ctttgttcca ttgaaggaag aagcaaacac gatctatctt     480
acagaaagcg agttggaagc attatacaat cttgatttgc cgtccaatca ggcagaggta     540
agagattgct ttctgatttc atgttacacc ggattgagat actctgatat atccagactg     600
gatgtgaagc atatcaatgt ggaaaagaac acgataacga tagtcacata taaaacacgt     660
aatcaagtaa tcattcctat acatcgaatt gtaaggggga tattaaaacg ctatggaaac     720
```

```
aggccgccga agccccaatg taaccaatca acaaatcgga tgctcaaaaa gctatgcgaa    780
caagctggca ttacggaaat aatatcctat acagaaactg ttggaggagc acataaggaa    840
tgcacagccc gtaaatgtga taaggtgaca acccataccg cccgaaggag tttcgcaacc    900
aatgcttaca aacggaatgt ccctacgcta gcgataatgg caatcacagg gcataagact    960
gaaacctcat tcatgaagta tattcgtata agtaaagagg agaatgccca attgctacaa   1020
acgcatgaat tttttgtatg a                                              1041
```

<210> 2766
<211> 183
<212> DNA
<213> B.fragilis

<400> 2766
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ttatgggaaa gggaaaggtc ggggaaggaa agggacacat tattatatta tataggggaa     60
atttataggg gagagggaaa aggggatttg ccgagaaagg gggaaggaga agtgtttgcg    120
ggaggaaaag ggatgtttcg aggaagaata tcgcggaagg aattgggggtt gggagagaga   180
taa                                                                  183
```

<210> 2767
<211> 315
<212> DNA
<213> B.fragilis

<400> 2767
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gttatgagaa gtacaaaatg gatggtaggt attattctat ttgcttgtgt attgactcta     60
ataggcgtta caaaaagtgt aagggctaaa aatcaattag gaaaattgac atttctgggc    120
gttgagagtt tagctgatgg tgaaggagga gggagtgact atcgagaggc gactcctcat    180
gattgtaatt attctaagga tgtattcctt gaaggtgcgg accatatcat aaatgtaacg    240
gttcctggca aaaaaggaat ttgtgatggt actaatggta catgcaatag ctggccgtgt    300
agagaggtaa aataa                                                     315
```

<210> 2768
<211> 216
<212> DNA
<213> B.fragilis

<400> 2768
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ttcattcttg ggtttgtttc gagttcattt ggtttttaact tcaccacaga taacacagat     60
tttcacagat taataattta ttttattgat aacaagatta gaagttctgt gaaaatctgt    120
gttatctgtg gtgaaacagg ttcattgcta ttccgtttca attattccca ccccggattg    180
ttaggtgcaa gtgccggatt caagataatt tcttga                              216
```

<210> 2769
<211> 1113
<212> DNA
<213> B.fragilis

<400> 2769
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ttttggggcg gctcatgcgt ggaagatgta acgtccaaac tgatgcgcca tctctggtat     60
catcctcccc ttcgtacatg cagctctgat accatcctca gagccatcaa ggaactgaca    120
caggaaaaca tctcctatac ttccgaccaa ggcaagacct atgatttcaa tactgcagac    180
aaactcaaca cattgcttat aaacgctttg gtttctacag gcgagttgaa ggaaattgag    240
gaatacgatg ttgactttga ccatcagttc cttgaaacgg agaagtatga tgcaaaaccg    300
acctacaaaa agttcctcgg ctacaggcct ggcgtatatg ttatcggtga caagatagtc    360
tatatcgaga acagcgatgg taacacgaat gtgcgttttc atcaggcaga cacccataag    420
agattcttcg ctcttctgga atcccagaac atccgtgtaa atcgcttcag ggcagactgc    480
ggttcctgct cgaaggaaat cgtcagtgag atagagaagc attgcaaaca tttctacatc    540
cgtgccaacc gatgcagttc gctctacaat gacatctttg ctctgagagg atggaagacg    600
gaggagatta acggcatcca gttcgaactc aattccattc tcgttgagaa atgggaaggc    660
```

```
aagtgctatc gtcttgtcat ccagagacaa agacgcaaca gtggcgacct tgacctgtgg    720
gaaggcgaat acacttaccg ttgtattctg accaacgatt acaagtcatc gacaagggac    780
attgttgaat tctacaatct gcgtggcggc aaggaacgta tctttgacga catgaacaac    840
ggattcggtt ggagcaggct ccccaagtca ttcatggcgg agaatactgt ctttcttctg    900
cttactgcat tgatacacaa tttctacaag accatcatga gcaggcttga caccaaggct    960
tttgggctca agaaaacgag tcgcataaag gcttttgtct tcagattcat ctccgtacct   1020
gccaagtgga tcatgactgc aaggcaatac gtgctgaata tctacacaga gaaccgagct   1080
tatgcaaaac ccttcaaaac agaattcgga taa                                1113
```

<210> 2770
<211> 336
<212> DNA
<213> B.fragilis

<400> 2770

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tgtccggcag gaagcaggtc gttccgtccc agttctgccc agtcgaagct atccatgttc     60
agcatctggc gtaagcgttc cgaactgaac ggaaggaatg gttcgaaagc gatagccagg    120
ttggctacca gttgcagaga tatattcagg atagtaccta cacgttccat atccgtcttt    180
gccagtttcc agggttctgt atcggccagg tatttatttc cgatacgagc cagattcatg    240
gcttctttct gtgcatcacg gaacttgaat acattgagca gcttttctac ttcggcttta    300
acatcggaga attctttcag tgtctctttg tcataa                              336
```

<210> 2771
<211> 225
<212> DNA
<213> B.fragilis

<400> 2771

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aatatattta ttatggaaag agaacctgta gtatcttcta atattgcttc aattgggtat     60
gacgaaaaca ataacatcct tgaagttgag ttcaataacg gaaacgttta tgagtattat    120
gatgttcctc tgcatgagta tgaaggctta atgagtgccg attcaaaagg cacttatcta    180
aacgcaaata tcaaaaaggg cggatacaga tattcaaaac tgtaa                     225
```

<210> 2772
<211> 207
<212> DNA
<213> B.fragilis

<400> 2772

```
gggaaattta taggggagag ggaaaagggg atttgccgag aaaggggggaa ggagaagtgt    60
ttgcgggagg aaaagggatg tttcgaggaa gaatatcgcg gaaggaattg gggttgggag   120
agagataaac tgaaaaacag gtggggaatt gacgggagtt ggacgggaaa tcagacgagg   180
actgaacggg aattgaatga aaattga                                        207
```

<210> 2773
<211> 1614
<212> DNA
<213> B.fragilis

<400> 2773

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tgtgatgcta tatacaacaa aacagattta aatagactca aatccatggg acattacgag    60
cataaaacga aagaggaact actggaaatt gtatgtaaat tggaaaagaa ggtggaaggc   120
ctctcttccg aactcgactc tctgaaaaaa gggcgattcc gtgaacggta cagtactcgg   180
attctagatg cattgcctga tatgctgact gtttttgacc ataatgcgaa cattgtggag   240
ttggcttcat ctcctacaac aaatcatgtg gaaggtacca cctccgatag tattattaat   300
tcaaatgtaa aagatattgt tcccgaagaa gcgtatgaaa gtgttcgtca caacatggat   360
aaagtcatcc ataccggtaa gagttcgaca gctgaacatt cattaatgct ggacggggta   420
ctccatcatt atgaaaatcg tatttttccg ctggatgatc agtatttgtt atgtatgtgt   480
cgcgatgtct cgcaggagac tgagatggct aagatcaatg agacccagcg aagtgagatt   540
```

```
gtacgtctca attcgttgat gaatgacatt ttgaacaata ttcccgtcta tttatttgtg    600
aaggataccg gaaatgattt tcgttatctt tattggaata aagcttttgc cgagcattcc    660
ggaatctctg tccagagggc tgtcggtagt acggatgcag atatattccc ggacaagaaa    720
gatgccgaac atttccggga agacgatttg aaggtgatga agttgggacg tattgaatat    780
ctggagaatt atacaactat gagcggtgag gtccgtacgg tcactacaat gaaaacagtt    840
gtcccttcgg gaggtcagca tccttatatt atcggagtat cgtgggatgt aaccgaaatc    900
aagaagacgg aaaaggagct tatagctgcc cggattaagg cagaagaggc cgaccggatg    960
aaatcttcgt ttttggctaa tatgagccac gaaatccgta ctcctctgaa tgcgattgta   1020
ggttttttcca aactgattat tgaagcggac aatgagtgtg aaaagcgaca gtatgccgat   1080
attgtggaac acaactcgac tgttctgttg aatctcttta atgatattct tgatctttcg   1140
gcacttgaag ccggttcctt ggagctttct tatcacccgg tgaggctgaa agatatctgt   1200
ttacagttat atgaattgca tgtgaaatcg gttaagccgg aagttcggct tgtgctggac   1260
gaggtagatt cgcaactttg catacaagga gactgggaac gtatttctca ggttttggtt   1320
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aagaaggcgg atatggtaca gttttacatg tctgatacgg ggaaaggtat tccggcagaa   1440
agggtggcca ccatctttca gcgtttcgga aaaatagatg attttgtgca agggacagga   1500
ttgggactga ctatctgccg gatgcttgtc gaaaagatgg gcgggcgtat ctgggtacgt   1560
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```

<210> 2774
<211> 441
<212> DNA
<213> B.fragilis

<400> 2774

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aagagctata tcagtgcgag cagggggaaa aatgcgctta aaaattctta tctgcataaa     60
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tcatttgttt cacctatctc accaacatcc gaatcagatc tatacgtaat ccctaagtca    180
aaggacttgg ggattattgg tattgctgaa atagtaatag ggttatcttt tttaggcgaa    240
gtagttggaa aagacggaaa gcccgtccca ttagttcgtt tagctcacgg ttttgaagtc    300
cttttcaatt taaaatttgg aagtatatac gataaactgg atgctatttt tatgcgtaaa    360
ccattcaatc tgaccaaaac attagatgct ttaaagagtg caattaacaa agaagcccgt    420
aaacgagcta ataaacatta g                                             441
```

<210> 2775
<211> 2079
<212> DNA
<213> B.fragilis

<400> 2775

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tcgtataata tgcaatctat gattacaact cagttactcc gtccccagag cattgtcgta     60
gtgggggctt cgaacaatac acataagccg ggcggcgcta ttctgaagaa tctgattaac    120
ggtggttatc agggagaact tcgggctgtc aatcccaaag aaacagaagt gcaggagtg     180
ccttcctttg ccgatgcaaa ggagttaccc gatacagatc ttgctattct tgctattcct    240
gcagttcttt gtccggaggt ggtggaaaca ctggccgcag agaagcagac gcgggctttc    300
ataattcttt cggccggatt tggagaagaa acgcaggaag gcgctttatt ggaagagcgc    360
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gtagatctaa tttccagttc tggcgctact gcggtgttta ttcttgaatc ggcagtgaca    540
aaaggacttc agtttaattc tgtgtggtcg gtgggtaatg ctaagcaaat aggtgtagaa    600
gatgtattac aatatatgga cgaaaatttt gatgtccgga aagactccaa gatcaagttg    660
atttatatag aaagcatcaa gaatccggat cgtctgctgt ccatgcctc ttcattgatt    720
cgtaagggtt gtaaaatcgc ggctattaaa gcagggagtt cggagagcgg aagtcgcgct    780
gcatcatctc atacgggagc tatagccagt tctgattcag ctgtggaagc tttgtttcgt    840
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gtgatgctga ctgatgctct ttcgaaaggt ggactcaatg tacctaaact ggagggtccg   1020
gtcgctgaag agttgaagag caagctttt cccgggggctt ccgtaggcaa tccgattgat   1080
attttggcaa ccggaaccccc cgagcactta agtattgcca ttgattattg tgaagaaaag   1140
```

```
ttcgaaaaca tagatgcgat tctcgccata ttcggcacac cgggattagt gactatgttt    1200
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cttccttctg tgcgtacggc cggtgaagag gttgcctttt ttttagagaa aggtcatgtc    1320
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caaaaaggag taaacgagga taaatttgca gaaattattg tacgcttatc cacgctgctt    1980
cgttttgcga cagaaatcaa agaaatggat ataaatccgt tgctggcaac agaaaaggag    2040
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```

<210> 2776
<211> 849
<212> DNA
<213> B.fragilis

<400> 2776
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gtaattggtg ggcgtccggc aatgggaaaa actgcatttg ggttatcttt ggtaaggaat    180
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ttttagatg atactccttc gttgtccgtg caggaacttc gcacgagagc atttcgtctt     420
gtacgagaat atcaggtaaa gctaataata attgactatc tccaattgat gaatgccagt    480
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agccgtgaag gtattgaggg aaaacgtcct caattaagag atcttcgaga atccggaaat    660
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caagacgaca aaggaaatga cttacacgga atggcagaaa ttatagtctc caaaaatcgt    780
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ccaacttaa                                                            849
```

<210> 2777
<211> 783
<212> DNA
<213> B.fragilis

<400> 2777
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gagtatatca tcatcgacgg tgcatcgaaa gacgggactt tagagattgt caaccgatac    180
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ttggaacgat tccgcatcat gacccgccac tatggcctgc taagtaccct cgcatatcac     720
gcatggtttg tggtaagaag tctctcccgc aactcagcta ctccttccga tgcacccttc     780
tga                                                                  783
```

<210> 2778
<211> 1143
<212> DNA
<213> B.fragilis

<400> 2778

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attgtcagta atgtgactga gctgctccgt aataaggagt tataccgtcg tatgtccgaa    1080
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taa                                                                  1143
```

<210> 2779
<211> 3045
<212> DNA
<213> B.fragilis

<400> 2779

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ttattggtgt tggtgctggc aggaggtctg tttttcttatt ttaaaatggg aaagctggag     120
gatgctccct ttactatcaa acaagcattg gtactgactt cctatccggg ggcttctccc     180
gcagaggtgc agtcgcaagt aactgatatt ttagaggaag ccatacagtc gctaggagaa     240
ctttattatc tgaaaaccga gaatcgtgcc gggctttcta agatcacggt ttatgtgaaa     300
aaagagatcc gtgccgaaga gatgcagcaa ttatgggata aactacgtcg gaaagtaaat     360
gatgtacaag ataaaattgcc tgccgggggct ggaacttcta tcgtaaatga tgactttgga     420
gatgtactcg gtgtatttta cggactgacc ggtgatgggc atacatatag ggaactggaa     480
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ggaatgttgg ttgacaacgc cattgtcgtg tccgattctg ctctgattaa tatggaacgg    1260
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```
gagctgaaag catctctgtt tgatggaaaa tattatcatc ttttcaggaa attattgcgt    1560
tgggtacttc ggcatcgcac gatgactata gcttcgttgg ttgttctgtt gttgctttcg    1620
gcatggagtt tcaaatttat tccgaaggtt tttgtgcccg ctctggataa gcaatacttt    1680
actgtcgata tgtggctgcc tgagggaaca acaatcgggg agacggaccg gatagccggt    1740
gaaatatccg attatatccg tactcatgaa gagaccgaaa tggtttcgtc ttatatcggc    1800
cgtactccgc ctcgctatta tctttcaaat atatctttcg gtcctcaatc caactatgcc    1860
cagttgctag tgaaatgtaa aagttccaaa gagtcgcggg cactgaatgc tctgttgcag    1920
gattccattc gtttgaaata tccggaaccg ctgattaagg tgaataagtt cgaattaagc    1980
ccgctgacgg aagccatgat agaagcccgc tttctggggc ccgatccggc tgttctagac    2040
tctttggcag gtgaggcgat cgagattatg cgtcgtaacc caaaagtcgc agatgcacgt    2100
aatgaatggg gaaatatgtc gatggtgatg cggccggttt atgatcccgt gaaggcaggt    2160
gctctcggta taaccaaatc acagatgatg gagtctgtga aatcgatcag cgacggaacc    2220
agggtaggtg tttatcgcaa tgatgagaaa aaggttcctg tactattgaa gtcggaagga    2280
gctaacatta cggatgcccg ttctttaggt aatttctctg tatggaacgg tgagcattcg    2340
gcacctttgt cgcaagtgac cgaacgaatc gagacgacat gggagtggcc tcagatgcgt    2400
acttataacc gtcaattgtc tatggctgcc atgtgtggag taaaatccgg gtataccatg    2460
gcagaagtgc atggggaaat tcgtagagag attgaagcga tgaagttacc cgaaggttat    2520
actttctttt gggactcaca atacaaagat cagagagagg cgatgcaggc aatcggtaaa    2580
ttctttccgc tggctttttct ggtactggtc gttattctgg ttgccttgtt tggtaacttt    2640
cgcgatccgg tcattattct atgtgttctt ccgctgtcca ttatcggagt ggctgtcggt    2700
atgctcttga cgggatttga tttcggattc ttcccgattg ccggttggtt gggattattg    2760
ggtatggtta ttaagaatgt gattgtactg ttggacgaaa tagatgtgca acgccgggaa    2820
ggagtcgttc cttatacggc cgtgatcgaa tctacggttt caagaacccg tccggtactg    2880
atggcagcca caaccaccat actggggatg gtccccttac tgtttgacat agcatttggc    2940
gggatggcgg ctactatcat tttcgggttg acattcgcta ccttgctgac tttgtttgtt    3000
actccggcat tatatgcaat attttataag ataaaagaga aatga                    3045
```

<210> 2780
<211> 369
<212> DNA
<213> B.fragilis

<400> 2780

```
catggcacca taatttacat ttcctttgta ccattgattt atagatgcat cgtaaatcgt    60
ggtttcaata gtaatttaaa aaaaatgaaa aacgaaggaa ttatacttat taaaggaaca    120
gagttgcagg atcttatcaa taaggctgta gcactggcat ttgagaatgt atgcttagcg    180
gataggcgaa aggcaaaaac ggctgagaaa ttgctatcac gtaatgaggc atcgaaggct    240
ctgaaaatat cgctctccag cctaaaccgc agagtaaatg atggaagcat aaagtgctac    300
aaaatcggag cccggagttt ttttaaagaa agtgagttag aaaatttatt aacctttta    360
aataaatga                                                            369
```

<210> 2781
<211> 642
<212> DNA
<213> B.fragilis

<400> 2781

```
cacccaaaca tgaagaaact ttattcactt ctcctcaccg ccctgtttgc cttgccggcg    60
gcgcatgtcc atgccaccga ctacacgcaa gggctctcca tctggttcga cacaccgaat    120
acactacaag gcagagccat ctggtatggc agccgccccg atctctggaa aggagaaagc    180
aaaccggaga gcgcaggaga cactgcccgg aaccccgatg ccaactggga gtcgcaatca    240
ttgcccattg gaaacggaag catcggagcc aacatcatgg gctcgataga agcggaacgc    300
atcacctta acgagaaaac tctctggaga ggaggaccta atacttcgag aggagccgat    360
gcctactgga atgtaaacaa acagtcggca catgtactga aagaaatacg ccaggccttt    420
accgacggag accagaaaaa ggccgaaatg ctgacacgca agaactttaa cagcgaagtg    480
ccttatgagt cgaaccgaga aaaacctttc cgttttggta acttcaccac aatgggagag    540
ctttatatag aaaccggact cagtacagtg aacatgagtg actataaacg tattctctct    600
atggattcgg cattgggccg ttgtacaatt caagaaagat ga                       642
```

<210> 2782
<211> 1191
<212> DNA
<213> B.fragilis

<400> 2782

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gtcatgaaca tcctgatcca acaaaccaaa gcatttcctc atcgtgccaa tagcttttat      60
tggttctatg cgcaactgac cgaatggctg actgcacacg gagtggacag taagctttac     120
ttttcgtacc tggaactggc tgacagcgaa tttgagaacg gcctcctgtt gcccgatcat     180
tattctcaat tctatactcc ccgcaacatc gaagcaatct gtcgcttcat tatcgacaaa     240
cagatagacg tgattctcga ttactcccat gtcatccccg gagatacacg caaatattac     300
ctcgaaatca aaaaagaaa tcccggaatc aaaatatgca cgatgatcca caactgtccc     360
agccatacga cacagttaaa acaatacgag ttatctacac tccggttcaa agacgtgcat     420
ggacccaaga aacttttttca gtggatgcta ccacaactct acatcagctt attaaaaaaa     480
gtggtcagcc atcaaaaccg ttcggcatac gacacgctcg acgaagtggt actgctgtca     540
cccgcttata tacccgaatt caagaaactt ataggcaaaa aagacgcatg gaagttatct     600
gccatcccta atgccataaa acctgtgcat agtaacatcc cgattgagga gaaggacaaa     660
gaaatcatct ttgttggcag aatggcaacc gaaaaggcat tacccaaatt actaaagata     720
tggggtatgg ttcaggataa actgccggac tggaaactca cccttgtagg agatggtccc     780
caattcggca cgtgccggca aattattgcc gagaaaaaat tgaagcgggt ctgcctgacc     840
ggccatcaga tgtcgatccc ctatatagac cgtgcccgga ttctttgtct gacttccgtc     900
atagaaggac tacccaccgt atttacagaa gcaatgtcac tgggggtgat tcctatcgga     960
ttcgattctt tcaatgcgat ctatgacatg atagatgacg gcatagacgg attcattatt    1020
cccgacaaca attatgaaca atatgcagaa accattctac ggttggcaca aaatgacaca    1080
ctccgctgcc agatagccta caaagctcaa aagcggaaaa acagatatga catagaacag    1140
gtaggaccac tgtggatgga aactttccgt aaacatggat taattaaata g            1191
```

<210> 2783
<211> 498
<212> DNA
<213> B.fragilis

<400> 2783

```
gcaacaagca ttttacacaa gccacgaaac ccgaggctaa atatacaaaa aaatagccac      60
acaagcccca aaaagataaa attttttaata aacacgtatg ttaacactgt tttttttaaa     120
ataagaagta aatataaaact atatttgcaa ataataacct ttaataaaaa tagtatgaaa     180
caaactttat ccaaagctgt agtaactata attatagcat gcacagcatt gtacgcctgg     240
aatcataagc aaccggtttt aaccaatgta cagttacaaa atctggaagc aatagccgcc     300
ggtgaagaag gggcatgtat tagatggata gaacaaacgt gttactatag tttctcagag     360
gaacatgata atgaaccaca ttatgagtgc aatggttcga gtggacaagc aggaatgaca     420
tcttgcggcg taataaataa taaaaagcca acatttggct atgtaaaagg cacttgtcta     480
atatgcatag aacattaa                                                   498
```

<210> 2784
<211> 1206
<212> DNA
<213> B.fragilis

<400> 2784

```
ttatgtggca ttagtataga aaacatgcaa aaatatctgt tattcttatt cttatttatt      60
tgcgcgagtt gtattggttc aaaaaatgga gttctagaac aaaacaaaat ttttgacatt     120
atgatagatc cggatcgtgt taccgatgat ttggatttat catgcatctt aactgattcg     180
attgagatta taaaattgaa taccagtgat gaatgcctta taggagaaat taaacaagta     240
tcatttacag atcaatttat ttttgtttct gatccttatg ttagccaaaa aatattcatg     300
tttgataaaa atggaaagtt tgtaaaaaat ataggtaggc aaggaggagg gcctggagaa     360
tatagtataa ttagtaagtt tactataacc ggagattcgt tactgattca agattataat     420
cttcataaat atttggtata tagtataaaa gaagattgct ttgtcagtga tattcgctat     480
gaacctcatc atcattcgat tgttgcatat ccagatattc tttactttgt gtctgggtat     540
tttcctgctg atgctgggtg ttataatctc tatcggtttg atcttagaaa ttcgagtatg     600
```

```
gagtcttatt taccttttc tcaaaaaatt gcggtaaata gaagtgcgtg gtctattgag    660
gagcaatgta gtcgagtttg tgagcggtcg tttgtttttt atgcccttag tgatacaatc    720
tatcaagtaa ataaagataa agctatcccc gtatatacat taaattttc aaaacgaagt    780
atacctgatg attttaaaga aagtcatagc ggagatgaaa taatggattt agctttccag    840
gaggggtatg taagaggccc aattcatctt caacattcag accgatggat gttgggcact    900
tatgttgatg gtaaagagta taggtatatg ttgattgata aaaaaacggg gcaatatcaa    960
ataggaagc aattgggagc cagaaaagaa ggtaatttga ctattccaca taatttttta   1020
attgaagata attattttat ttcatggtta cctgttaggc tcctgaaatt gtggaaaaat   1080
cattttagtc ctaatacctt tagagataaa ggtagagtgg gaaaatggga aaggctaatt   1140
gattctttgg atatagatga taatccagta cttataaagt gtaaaataag aaataatgaa   1200
acttaa                                                             1206
```

<210> 2785
<211> 258
<212> DNA
<213> B.fragilis

<400> 2785

```
tactcattaa ttattaaaca cttcatgctt atgaatgatt tatcaaaaac gaggattatc     60
atcttattga ctgattcctc acaaaaagta actgacacag aaatgcaaga cgcttatgac    120
gaatttatca ggtgcatagc aacaattggc aattcaaaag ataactccaa catctttcgg    180
atgctgaatc tcactcgtat tgagatagca cccttaaaag agctatatca gtgcgagcag    240
ggggaaaaat gcgcttaa                                                  258
```

<210> 2786
<211> 1020
<212> DNA
<213> B.fragilis

<400> 2786

```
gagaacacaa tgaaggtcac gatatatcca tactctatca acaaaagtga tatacgcgtt     60
aatccgtata tcagcgactt catccatgca ctgcaacaga acggaatcac aattgccaat    120
ccccgcaca agaatccgtt attcagcctc atcccaagaa aagcagatag cgatgcttat     180
atctttcatt ggccggagaa tgtacccgac tacaaatatg gaatgttgca gactcttgct    240
gctatctggc ttcttttcaa aattaaatgc caccataaga agatcatctg gttcttgcac    300
aataagcagc cccatgtgat gaaacaccga tggtcgaaaa agttattgat acatctgctc    360
ctccgcaaag ccgatttgat agtgacacat gctacagaag gtatcaaagt ggttcaggat    420
caatatccga aggctgtagc caaaacggta ttcttgcatc accctactaa aaaccggata    480
gaagagtaca tcccccaacc accggaaacc gacctgctga tctggggaaa tatctcccga    540
tacaaagggg taccggaatt cgtacgtttt gctactcagc attcattaaa actgaagact    600
aaaatcatcg ggaaatgcag ttcgcaggaa ctcctggaag aactacgcaa agaaagtaat    660
gagatgatca gcatagagga ccgtagtatt cctttcgaag agctaaaaca agagatccgc    720
agatcacgtt tcgtactggt accttatgct gccgagtcta tcttaagttc cggcatactg    780
atggactctc tctcattcgg agccaaagtc atcggaccgg ctgtaggctc tttcagggac    840
tacgccgccg aacccttgct taacgtatat actttccata cgttcgatga tatacaggaa    900
ctcgttgaca aggcaaacga agcaacagat atagccggtt acaaccggtt cctcaatgca    960
catagctgga acgaattcgg caaaaagttt caaaatttac ttcagaaaat aatacagtaa   1020
```

<210> 2787
<211> 288
<212> DNA
<213> B.fragilis

<400> 2787

```
ttctatcaaa taaaaatatc cccggaagaa aagtattttt tccggggata tttttgcttt     60
attacacaga gttcactcca tccggagaag tatattcatc atacagagat atccaaacct    120
aatgttactg ccatccggat cttactacta acgtctact atctttattg taaaatccaa     180
aaagtatcct atttaacatt ttggtatttc tcaactccaa cattcctaaa tataaacact    240
attaaacaga accggataga aaaccggaac gaaaagacaa aaccttaa                 288
```

<210> 2788
<211> 921
<212> DNA
<213> B.fragilis

<400> 2788
```
ctattaaaaa taataacaat gatgacaaaa agagattttg tgccaagtaa tagttttggt    60
caatacgtca gcccatatcg tagattggat gatcaaatag ccatttttca tttcttatgt   120
aagttttttcc ccgcagattt agttcaagaa gtcttggttt ggcttggtgt gatggcaacc  180
tatcggtttt gttgcaatgg aaaatttgga gcattattta aatttgtgga ttattcggat   240
acgataagga gggtacaaga agtttgctta gacccagaaa caggtagaat tttgcaaagc   300
ggggatgcta gagctcaaat tgccaatact cttcgtccga atgccactta ttcttgtatg   360
cctgagggtt ataaagcttg tatgatagaa aaagagttga tgaactcaaa atccgaggtg   420
gtgtatgact gcaagccttg cttttttgga caagctcaat gctttgaaca tgctagatat   480
gacagacctt atggtattgt taaacatgta gtttctgcaa tctttctgaa tatctgtgga   540
tataaagata aaaatagtcc agtttggctt gcaacaggag gtagtgaact tactggttgt   600
gatctatcga aggctgatat tttaaagttc tttcaattta aagaaatgat tttatttcct   660
ggggctgagc tatatgatca aagtaaggaa atagagcagc aaatacgcct tatgggaatg   720
aaggctagaa cgagttattt tatggaaaag gtagaatata aagataaaca gcggggagat   780
gatattagta attacataat atctgagatt aaccggggtg ttcattacaa agaggcttat   840
gagagtgcct tagatcgagg ggctttagct cttgattggg gctcggcaat ggtcgataac   900
aacagaatga tgaaagaata a                                             921
```

<210> 2789
<211> 300
<212> DNA
<213> B.fragilis

<400> 2789
```
ccaatgaaaa tatacatctc agggcagata acgggactgg aagaggaaaa agccaaacgc    60
tattttgaca aagcggaaga aatactattg gagaaaggtt atggtccggt aaaccctatg   120
agtgtcaatc ctccaatgga aaataaatca tggaaagatt acatgataga tgatttgaag   180
cttctatttg attgtgaggc aatctatctc attgataatt ggcagtcttc taagggagca   240
agaatcgaat gctatatcgc aaaagagctt ggaatgagaa tattagaaaa tatagaataa   300
```

<210> 2790
<211> 1725
<212> DNA
<213> B.fragilis

<400> 2790
```
atcgggaaaa ttgggccggg taacgtcaag aataaaagca ttatgaaaaa gagctttctt    60
attatactct gcttagcttt actatcttgt gtgaccggat gtaaagattc aactcagact   120
ttactcaaga agtctgtaga aatggaaggt atttctacag acagtatgct attttatctt   180
caacaaatac agtcccccaa tcacctgaat gacaaacaac gggcagaata ctgctttcaa   240
ttgtataaag ccacattgtg gaaaacccaa aagcccaaag attcactatt aaaagtctgt   300
atcccacttt tcctacatgt tggagatact gcccaatggt tgcaagccca actggaacag   360
gccaatagtt tcttctataa agatcagccg gattctattt tacattctgc ccgggagctt   420
cgggacaaaa caaagtatat gactcccacc caacaaagat attactataa catacaaaaa   480
ttcacctatt tcaatcaaaa aaagtatcca gaagcactaa aattggctaa taaggtgttg   540
gccctgaata acccttctaa tgacactctt tctttatttt atgatcatcg gacccaattg   600
gaaatattaa gaaaaatggg aaagaccgat gaagtcatag aagggtatta caaaatgttg   660
gaatggtttg ctccttccaa agaatatcat tatctaactt acaccatagc cgaagacatc   720
gtaaactatt atctaggaca gcaagacttc gacaaggcac tggaatctgt gcaaaacctc   780
cgcctgtatc gtcgcaatcg ctatgatata ccttactacc aattgatccg aggccaaata   840
ttccagtccc tgcatcaatt ggactcggcc ggatattatt ataaacaggc agctacctca   900
acttcaccct atatcgccat tgaggctacc tcacgtttat accagctgac aaatgcgacc   960
cagcaaccgg aacaggcata ttatctggct aaaacagaag atatactata taaagacctc  1020
```

```
acatcaaacc tcaaagcaaa agaaaccacc agaaaatata atgaagtaaa gctccagaac   1080
gaactctatc aactacgcct tacccaacaa gaaaagagc tgtggatgat gggaatagca   1140
gttattttat tacttatagc tctactaata ctcttttct atcatcagga aaagaaaaaa   1200
agactagtat cggaacgaag gctacaagca gaacaggccg gagaggaagc tcgtcggcta   1260
caacatgaaa atgaactatt acataaagaa gccgaattaa gtgcactgcg cgaaaaagag   1320
atcatcatgc gcaacaaaga aagcgagatg cgtgaagctt tgttccgtca tatttctttc   1380
tttcagaaac ttccttctct ccacatcgag aactctacag atgacaatcc gaataggaag   1440
aaaattactg taagcgatgc agaatggtgt gaagtgaagc aagcggtaaa tgacgcattt   1500
aataattttg ttgatcgtct gcaagaagat tatccgcaac tcaatgaaaa agatatctgc   1560
ttttgttgcc tggtaaagat taacgtgaac atacaagatc tatcggatat ctattgcgtc   1620
agcaaagcgg ccataaccaa acgcaaatac cgaattaaaa cagaaaagat gcatatttct   1680
gacgaaactc tcagcctgga tgccattctt caaaacttcg gatag                   1725
```

<210> 2791
<211> 963
<212> DNA
<213> B.fragilis

<400> 2791

```
aaaaagaaa tgaaattaga ggaaaaaaca aaaagaagg atgagcaagg gctgattatc   60
aaaaagtacc aacagtatct gaaactggaa aagtccttat ccaaaaacac actggaggct   120
tacttgacag acctggagaa gttactaagt tttctatcag ccgaaggcgt ggagatactt   180
gaagtcagcc tgacagatct tcaacgcttt gctgccggat tacatgatat tggtatccac   240
gcccgttcac aggcacgtat catttcaggt attaaatcct ttttccactt tttgattata   300
gctgattata tagaagccga tcccagcgaa ttgctggaag gtcccaaaat cggatttaaa   360
cttccggaag tactgaccgt agaagaaata gaccggatta tttcgacaat agacctgagt   420
aagaacgaag ggcaacgaaa tcgggcaatc ctggaaacgc tttacagctg tggattacgg   480
gtttccgagt taaccggact aaaactatca gacttgtact ttgacgaagg tttcattaaa   540
gtagaaggaa agggcagcaa gcaacgatta gtccctatct ctcccaaagc gatccaggaa   600
ataaagcttt atttcttgga tcgaaatcgg atcaatataa aaaaagatca tgaagattat   660
ctgttttaa gcaggcgagg tacccattta tcacgaatca tgatctttca tctcatcaaa   720
gagctggccg atatggcggg aattaccaaa aatatcagtc cgcacacatt ccgccactcc   780
tttgcgacac acttacttga aggaggcgcc aatctgcggg ctatccaatg catgttgggg   840
catgagtcta tttcgactac cgaaatctac acccacatcg accgcaatat gttgcgaagt   900
gaaatcatag aacatcatcc acgcaacatc aaataccgac aagaaaaaaa gccgtttcgg   960
taa                                                                 963
```

<210> 2792
<211> 1254
<212> DNA
<213> B.fragilis

<400> 2792

```
ctggaacgaa ttcggcaaaa agtttcaaaa tttacttcag aaaataatac agtaatgaaa   60
gtactctata cattcggcgg catgccccat tatctgaatg ccatgctcaa caaacttcat   120
aacaaaggag tggaaatcac cgttatcact cctcaaaaag gaaatgccac tatcggtaaa   180
ggtgtaaaaa tggtagaggg aggaacatac aggcacctca ccgccattga gaagaaagca   240
ttctacggaa aaagctccta tccctcccta ccggaaatag tacgtgaaga gaaaccggat   300
attctgataa tgggatggcc ctatttcctg caagtgttct ttcaaccccg attgagaaag   360
gctatgaaag agtgccggac acggttggtt atccgtgaaa ttcccttcca gacccctccc   420
tacgggaaaa taaaagaata tttccatgaa aacccgatgt atgatgaaaa catgcggctg   480
gtcagtaccg gaaccggctt ttatcttaaa caatggctga cagcgaaaat acgtaaatac   540
tgctacgcac gcattaccgg aacgttgaat tactcgaccg ctgcatacga tattcttcct   600
tcctacggag tgaagcagga gcaaatacat gtcacttaca actctacgga cacagatgcc   660
ttactgaagg agaaagaagc cgtactcacc tcgcccccgc ttcttcctcc ttcctccaaa   720
agagcgctac acatcggccg attagtgaaa tggaaaaggg tggatctgct gatcgatgca   780
tttacaaagg ttattgccag tcatccggac gcggaactgg tagtggtagg cgatggaccg   840
gagctggata acctgaaaaa acaggcagcc gacctgaatc tgacagaaca ggttcgattc   900
atcggtgcag tatacagtcc caaagaactg ggagcctata tgaatgaatc gactgtctat   960
```

```
gtactcgcgg gcatgggagg attatccatc aatgatgcca tgacctacgg actgcccgtg    1020
gtttgttcgg tatgcgacag caccgaacgt gacctggtaa cggacggagt gaacggactt    1080
ttcttcaaag aaggcaatgc cgacagcttg agcgacaagc tcaacaaact gtttgcctct    1140
cccgaacgtt gtgcctctat gggacgtgag tcggaacgaa tcatccgcga gaaaatcaac    1200
attgaaacgg tcagcgaacg ttatttgcaa gctttccgaa cttttatgca gtaa          1254
```

    <210> 2793
    <211> 525
    <212> DNA
    <213> B.fragilis

    <400> 2793
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accaaaagaa ttatggctaa agaaagtgta aaaatcctgc aaggaaagct cgatgtaaaa    60
agtttgattg atcagctgaa tgctgcatta tctgaagaat ggttggcata ctatcaatat    120
tgggtaggtg cattggtagt ggaaggtgct atgcgcgctg atgtacaagg ggaattcgaa    180
gaacatgctg aagaggagcg tcatcacgca caattgattg ctgaccgaat catagaattg    240
gaaggagttc cggtactcga tccgaaaaaa tggtttgaac tggctcgttg taaatacgat    300
tctccaacag cattcgattc tgtcagcctg ttaaatcaga acgtctcttc cgaacgttgc    360
gctattctcc gttatcagga gattgctaac tttacaaacg gtaaagacta tactacatgc    420
gacatcgcaa agcatatttt agctgaagaa gaagagcatg aacaagacct acaggattat    480
ctgactgaca ttgccagaat gaaagaatcg tttcttaaga aataa                    525
```

    <210> 2794
    <211> 612
    <212> DNA
    <213> B.fragilis

    <400> 2794
```
attataacct tttaccggga aaatacattc aacattatgg atacaagcaa aatcgtagga    60
gaaaaaatta aatcactccg tgagaacaaa ggaatctcaa tagaagaact tgccgaacgc    120
tcaggattgg ccattgaaca aatagaacgt atcgaaaaca atattgactt gccttcattg    180
gctccactta tcaaaatagc ccgcgtattg ggtgtacgtc tgggcacttt cctcgacgac    240
caggacgaaa caggtccggt agtctcacgc aagatggaag ctacagacac gatcagcttc    300
tcaaacaacg ccatccattc gcgcaaacac atgcagtatc attcactgtc caagtcaaaa    360
gccgaccgcc atatggagcc gttcatcatc gatgtagccc ctacacaaga cagtgatttt    420
gtactttctt ctcacgaagg agaagaattc atcatggtca tggaaggtgt catggaaatc    480
agttacggaa aaagcactta cctgctcgaa gaaggtgaca gtatctacta tgattccatc    540
gtcccccatc acgttcatgc ttatgaagga caagccgcca aaatcctggc agtaatctat    600
acacccattt aa                                                         612
```

    <210> 2795
    <211> 270
    <212> DNA
    <213> B.fragilis

    <400> 2795
```
tgctttctga tgaattatgc aagcatttta gtcaaaaaac tgactctttc ccgtatgtct    60
cagaacttgt atgttcgttt aggattctta ggaaaccaac ctttttttcac cctctcttct   120
tgctcaaaga cttctttgat ggtccagaaa gaagagaaag cgaatacgcc caataaagac   180
gaaacgagta tattgtctgt gctcaacgaa gcagctactc ccgcgatacc taatatcagg   240
aaaatccacc agcatttcgt tccccagtaa                                      270
```

    <210> 2796
    <211> 1017
    <212> DNA
    <213> B.fragilis

    <400> 2796
```
aagcctatga ttgttatgaa taattttta gtgtttgata caataaagat cgtgacatgt     60
```

```
ggtacttatc ttaaaatatc cgataaatca gtctttacaa ccgatgttga tttgttggat   120
ggaagaacaa taaaatcagt aacatttaat tctcagcgga atagaagcat tgtcccattt   180
gaattgtata tccacgccaa tctattgtcg aataaaatgt gcattgagtt ctcttctaaa   240
atactgtggg aagattatcc taaattaata tcttctgaaa catttgctca gtgtttgcgg   300
aatatagaga aaactggaat ctgtacattg gatattgacc gaatcatgga ggattgctat   360
gttaccaaat tacatgtcac taaagatatt gaattagagc ttacgccagc gatattgaat   420
tgtctgaatc tctgtacggg caacttccgg cgatataatt gggaacggta taaaactgct   480
atcctgtttt ccaaaaatgt aaaatcatca aatagcaaag aagcaatcag catctatgat   540
aaagggatag aaattgtaca aactaaaaat aaaggattct tgggactggt agaaaacgca   600
gataaaattg tggagtattt tgctggaaaa acccgttttg aggttaaata tgaaaatatg   660
agtaagataa aaaaagagct aggaatcaag gataccagtc tgaaatcagt gtttggggta   720
aagaagaata tagtccttac tcagtttgat aaaaatattca cggaaagaac catttcaacc   780
gatgtgagaa tagaaacatt ttcggagtat gggatatgga atatcgtttg taatcataat   840
ggggatctta aagctattga acaagagata aaagatttgg gtatttatgc caaggggtcg   900
agagccgttt tggggaggac aatgaaaaag ataaaagaaa tagctcagat atggggtaat   960
agggaaatga aaacggatgt cgttcttgaa aaaataaggc ttctgttaag gggataa     1017
```

<210> 2797
<211> 1683
<212> DNA
<213> B.fragilis

<400> 2797

```
tcagcaatga tcgctctaca cattactaaa aacatgcaac tatacgaaag aacactcgga   60
caatggcttg aacattgggc cgaaacaaca ccggacaaag aatatattgt atactccgac   120
cgcaacttgc gcttcacctg gaagcaattc aacaagcggg tagacgatat ggcaaaagga   180
ttgattgcca tcggagtgga aagaggtacc cacgtcggaa tctgggcagc aaacgtaccg   240
gactggctta ccttattata tgcctgcgca aagataggtg cagtctacgt aacggtaaac   300
accaactata aacaagccga actggaatac ttgtgcgaga actcggatat gcatacgctc   360
tgcattgtca acggcgaaaa agacagcgac tttgtacaga tgacctacac catgcttccg   420
gaactgaaaa cctgcgaacg aggacatctg aaaagcgagc gttttcctta tatgaagaac   480
gtaatctacg taggacagga gaaacatcgc ggaatgtaca acacacagga gatcctgttg   540
ctaggcgata acatagaaga caccgagctc aacgaactca agtcgcaggt cgattgccac   600
gatgtggtaa acatgcaata tacatcagga acaaccggat ttcccaaagg ggttatgctg   660
acacattaca atatcagcaa taatggtttc ctgaccggag aacacatgaa attcacgggc   720
aatgataaac tctgctgttg tgttccattg ttccactgct tcggtgtagt gctggccacc   780
atgaactgtc tgactcatgg ttgtactcaa gtgatggtgg aacgttttga cccgctgatc   840
gtattagcct ctatccataa agagaaatgt acagcacttt atggagtacc cactatgttt   900
attgccgaac tgaaccatcc gatgttcgat atgttcgata tgtcgagcct ccgcaccggt   960
atcatggccg gctcactctg cccggtagaa ttgatgaagc aagtggaaga gaaaatgtat  1020
atgaaggtta ccagtgtata cggactgaca gaagcagccc ccggaatgac tgctacacgc  1080
attgacgatc cgtttgacgt acgttgtaac accgtagggc gtgactttga atttacggag  1140
gtaaaagtgc tcaatcctga aactggtgaa gaatgcccgg tcggcgtaca gggggaaatg  1200
tgcaaccggg gatataacac catgaaagga tattacaaga atccacaagc tacggctgaa  1260
gtgatagaca aaaacaattt cctacactca ggagacttgg gaatcaagga cgaagatggg  1320
aattatcgta tcacaggacg tatcaaagat atgatcatcc gtggtggaga gaatatctat  1380
ccccgtgaga tagaggaatt cctctataag ctcgacggag tgaaggacgt acaggtatcg  1440
ggcatcccat ctaaaaaata tggagaggca gtaggggctt tcatcatttt gcacgaagga  1500
gtaaccatgc aggcttcgga cgtacaagac ttctgccgga ataaaatctc ccgctacaaa  1560
attcctaaat acatttttctt tattgacgaa tttcccatga ccgggagcgg taagatacaa  1620
aaattcaaac tgaaggattt aggactgaag ctctgtgagg agcaaggtat ccagattata  1680
taa                                                                1683
```

<210> 2798
<211> 252
<212> DNA
<213> B.fragilis

<400> 2798

```
aagcaaaaga tatcaccaga tatcgtgata tcatcaaaga gctcggcttg cgtaagtaat      60
cacttactgc gaacaaaatt taaaagccgt ttcctctcta tggaggaaac ggcttttatt     120
ttttatcttt ctcccttgct tggatataaa atttcattaa ttttgcagca aaacgaatta     180
aattataacc ttttaccggg aaaatacatt caacattatg gatacaagca aaatcgtagg     240
agaaaaaatt aa                                                         252
```

```
<210>  2799
<211>  1047
<212>  DNA
<213>  B.fragilis
```

```
<400>  2799
gatatgaaga taagtgtatt attagctgct ctcctgttgc tattttcttg cacggataaa      60
gacagtaagc agagtcagga cttaattgtc aagacagcac aagcagtttc ggcctctggg     120
atcaagacaa cggagttccc gttatcgca caaccttttc gtacctctga gctatcgttt      180
cgtgtcggag gccctattga tcgtttggat gtatatgccg gtaaccatta caaacaaggc     240
agtattattg ctgaaataga cccgcgtgat ttccatattc gcaaagaacg ggctgaagcc     300
atctatcacc aagctaaagc tgaatttgaa cggatagaga agctgtatga gaagaataat     360
gtttcggcga gtacatatga aaagactaag gcggattata ctactgccaa aactgctttc     420
gatacggctt ccaatgaact gggagacact cgtctgacag ctcctttga tggttatgtg      480
ggagaagttt atatagaaaa ataccaggat gtgaagccag ctcagcctgt tatatccttt     540
attgacataa atcggttgaa gatagagatt tatgttactc agaatattgc gtttgcctca     600
cacccccacag atagtgtccg gatctatttt gatgcccagc ccgataagta ttataaggca     660
cagattgtgg aagtatcgaa ggggacaacc cgcaataatc tttcttattt actaacggct     720
gttttaccta ataaagaagg gaaattattg gcgggtatgt cgggaaaagc aatctttgat      780
gctcccggaa caacggatct gacaggtgtt tccattcccc aaacggcatt atgttatcgt     840
ccctcggaag gtgaatatgt gtgggttatt gatacgaata cccgacaagt gaatcgacgg     900
acagtgaaaa aaggaaatct gcttcccggt ggctatgtta ccataaccga aggattgagg     960
gccagtgaaa cggtagctac gagcggactt cgttttttat cggatggtat gaaagtggaa    1020
atctctacta agacaaactc attatga                                       1047
```

```
<210>  2800
<211>  288
<212>  DNA
<213>  B.fragilis
```

```
<400>  2800
ccttaccgga tggtcccggc tgattcacgc agaattcctc gtgctccgcg ctactcagga      60
taccactacg cttcggttac cttagaatac cgggctatca ccgtctatgg cacgactttc     120
cagtcgtttc ttctcaataa ctgtcttgcg agagcgtggt cctacaaccc cacacatgcc     180
gtaacatggg tggtttgggc taatccccgt tcgctcgcca ctactagggg aatcattatt     240
tattttcttt tcctgcaggt actaagatgt ttcagttccc tgcgttag                 288
```

```
<210>  2801
<211>  291
<212>  DNA
<213>  B.fragilis
```

```
<400>  2801
gacaagaact tacaaggctt tttctttttg ggagcccaag cgggtgccca ctcggatatt      60
cttgcattac tccctcatat acagcatttt atatatcgat tttgctatta ttttttgtcgt     120
agaaataaac tctatcagta tgcacctacg cagatgtata tcagttgcgt attgggctcc     180
gatggagcca ccactaccca acaaagagag ggggcaatag ccttgcttta ctcgactccc     240
accttaatag agcaacaggc ttgccacaag attgctatct ttttcactta g             291
```

```
<210>  2802
<211>  432
<212>  DNA
<213>  B.fragilis
```

<400> 2802

```
caggattgtg ttatgaggat acaaattatt aatggtccca atattaatct tttgggcaag    60
cgtgaacctt ctatatatgg aagcgttaca tttgaagagt atttggctga acttcgtaaa   120
aaatatcccg atgtggaact gggatatttc cagtcgaatg ttgaagggga aatcatagat   180
attattcagc aaaccggatt cgatgtggat gggatcatat tgaacgcagg agcttataca   240
cacacttcca ttgctttgca ggacgctatc cgctccgtaa cctctcctgt aattgaagtt   300
catatatcca atgttcatgc ccgtgagcag ttccgccatg tatctatgat tgcttgtgct   360
tgtaaaggtg ttatttgtgg atttggattg aactcatatc gtctggcact cgaagcttta   420
ttagataaat ag                                                        432
```

<210> 2803
<211> 354
<212> DNA
<213> B.fragilis

<400> 2803

```
ataattacg tagaaaaatt tatggaaaca acgagacaaa acaagatatc acgtctgtta     60
cagaaagaac tcagtgagat ttttctgttg cagactaaag ctatgcccgg tgtactggta   120
tcagtaagtg ctgtacgtat cagtcccgac atgagtatag ctcgtgtata tcttagtatc   180
ttcccttctg aaaagagtga agaaatggta aagaatatca ataataatat gaagtccatt   240
cgtttcgaac tcggtactcg tgttcgtcat cagttacgta tcattcctga attgaagttt   300
ttcgtggatg attcgttgga ctacattgaa aagatagatg ctttgttgaa gtga          354
```

<210> 2804
<211> 1764
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1492)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2804

```
cagatatttt ttataagtat gagactacat gtactatcac tcacatgcct gctgcttaca    60
gtaggaggca cagggccggt cgcagcccaa aagccacaaa actatccgta cggtgttcct   120
tccgaaccct gggaggaatc tttcggaaat catcgggcgg tactgcaaat agagaagccg   180
gcacaaatcg cgaacctcga cttccaatgg cggcgtccgg acaaagatgc aggacacaga   240
cgatttctta tcatccacgc tgcaacggga gataccatcc ggaatatccg ccggatagag   300
gtgaacgacg aacactgccg tttgcagttc ggtccggtgg aacaaaaagg cacttactac   360
ttctactacc tcccctacca agtgcaaaag ggatacggat tctacagtgg cggatacctt   420
ccgaaagaaa acgaaccgga tgcagcctgg caggctcaag gcgggtcaac cctgaaaagc   480
actcgggcca aagtggtcag agtagagtcg cggcaggctt tcgacagttt ttacccgatg   540
gaagttgccg caacggcccg ggagaaagag aactacatca accggcacaa agcctccctc   600
tacctctttg ccgaagatcg caggttcccc atccggatgc gcagcaacct ccctaccaaa   660
tggctggcag acaaacaggg aaaactgttt cggggagaag cagcccccaa tgaatactat   720
actttccaga tcgggctttg ggcagccgtg aaccaagcag acaagattgc ttaccgggct   780
tcttccctga agtgcggccg ggaaataata ccggcaacag ccattacctg tttttaatgtc   840
gaaggtaccg atccttacgg aaaagcgttc aaaaagaag taaacgtccc caaaggagag    900
gtacaggctc tctggttcgg aatagatata cccgacgggc agaaggaagg catctataca   960
ggcaccatca ccctcagcga tgccgacgga gcacaaagct cgatcccctt gagtatacgg  1020
attgcgggaa aggcattgcc cgacagaggt gacagtgaat tatggagatg cagccgcctg  1080
agatggctta actcgacatt gggcatagcc gatacaccta ccgcacccta cacagccatg  1140
actgtgaatg agaaccgtat cggttgtctc gggcgtagca taacgataga cgaaggcaca  1200
ggactgcccg cacaaatccg ttcatggaac aacgacgtgc tgagcagtcc catagagttt  1260
gtcatccaaa ccgccggtgg agtgaaaagc ctgaaagctg tccccgaact gacggagcgg  1320
acagaaggcc atgtagcagg caactggaaa gccgaagacg aagatatgac agtcagctgc  1380
aaagcaatca tggagttcga cggatggata aactacatat ataccatcac cccaaaaaag  1440
```

```
cagatacaag tgaaagacgt ccgtctggta ttgccggtca ggaatgaaat angaacttat   1500
tttctgggca tggggcttcc ggggcaacct actcctcaac agtatgaccg gaaatgggat   1560
gcccccgaga aaaccgtgaa cactttcgga gtgtccatcc ccaacttcca aagaacaaca   1620
atgggctgtg gcccgtccac aattttctgg atcgggaacc agcatgcagg tattcactgg   1680
caaatcaggg gaagcacata cagccggtcc gctattgaat ctgcaccgtc cggcctatcc   1740
ggaaagctgg ttcaacgggg gtaa                                          1764
```

<210> 2805
<211> 1377
<212> DNA
<213> B.fragilis

<400> 2805
```
ataactaaag taagggtgta ttcaggactc tatgaaagga gaccggatac acccttattt   60
tttactaacg gtcaggagcg gaaatatat atggcagaac agtcgctaaa agaaaaaaca   120
gccaaaggat tattctgggg tggattcagc aatggcatcc agcaattact gaacctgctg   180
ttcggaatta tcatcacccg tatgctggat tcgacagact acggtatgat tggtatgctg   240
gctatattta ccgccgtagc caactctata caagagagcg gatttacggc cgctctggcc   300
aataaacaga cgttccgtca tgaagactac aatgcggtgt tctggttcag ttttctaatg   360
ggtgcatcgc tttacctgct gctctttttt tgtgccccgt ttatcgcagc attctataag   420
actccacagc ttattcctct atcccgcttc cttttcctgg gttttctgat ttcaagttgc   480
ggaactgccc ataatgcggt attatttaaa aaactaatgg tgaaagaaaa agcgaaagca   540
accattaccg cactattgtg ttcaggcacc ataggaattg tcatggcata caatggaatg   600
gctttctggg ggctggccgt acagcaaatc acctatattt tcatcgctaa tgcgctgtta   660
tggtactttt ctccgtggcg tcctactttt tcgttcaatt tcaaacctat cagggagatg   720
cttccgttca gcagtaaact gcttatcacc aatgtatttc attacatcaa tgataacata   780
ttttctgttc tgctggggcg ctttttatacc agtcaggatg taggttacta tactcaggcc   840
aacaaatgga ccaatatggg cttctcactg atcagtaaca tgatcaacgg agtatctcag   900
cctgtcctgg tcgaaacctc ttccgacgcc atgcgacaga aaaatatatt tcggaagatg   960
ttgcgcttca ccgcctttat ctcttttcccg gccatgttcg gactggcatt gatagccaac   1020
gagttcatcg taattgccgt caccgccaaa tggcaggcat gtgtacccat catgcagatt   1080
ctttgcatct ggggagcatt tgtccccatt acttatatgt actccaatct cctgatcagt   1140
aaaggaaagt cgaatctttt tatgtggaat accattgcac agagcctggt tcaactcaca   1200
atgcttcttt gtactatctc acaaggcata ctcgtcatgg ccgtgattta tacggttatc   1260
aacatcggtt ggctgctgat atggcattat ttcgtaaaca agcagattca catcaccta   1320
tgggaagtca tgaaagatat cactccgtac ctactgatct ccggaggagt catatga    1377
```

<210> 2806
<211> 1320
<212> DNA
<213> B.fragilis

<400> 2806
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ctttgtacgg tttctcaccg aaaaccacta tttttgccaa aacatttcga tcgaatgaga   60
gttttaataa tcaatacttc cgaacgtttg ggcggagcgg ccgtcgcagc aagccgcttg   120
atggaatcgt tgaaaaacaa cggtatcaaa gccaaaatgt tggtgcgcga caagcaaacc   180
gaccagatca gcgtagtagg tctgcaacgt aactggtggc aagtatggag gtttgtgtgg   240
gaacgcattg tcatctggaa agccaaccgc tttaagaaga acaatctttt cgcagtcgat   300
atagccaata caggcacaga cattacaagc ctgccggagt ttcagcaggc agatgtcatc   360
cacctgcatt gggtgaatca gggaatgttg tcactgaacg atatccggaa gattctgaaa   420
tccggtaaac cggtagtgtg gaccatgcac gatatgtggc cctgtacagg tatctgccat   480
cacgcccgtg agtgtaccaa ctaccatcag gagtgtaacc actgtccata cctgtatgga   540
gggggaagta agaaagatct gtccaaccgt atcttccgta aaaaacaaca actctacaaa   600
gaagcaccca ttaccttcat cacttgtagc caatggctga agggacaagc cgaaaagagt   660
gctttgctga caggagaaac agtaatcagt atacctaacc ccattaacac caatctattt   720
aaacccagaa acaagaaaga ggcacgcagc aaatgccatt taccccaaaa cggaaaactg   780
attcttttcg gttcggccaa aatcacggat aagcggaaag gcatcgatta tctgattgaa   840
tcgtgtaaat tactggctgc gaagcatcct gaactgaaag attctctaag tgtagtcgtt   900
tttggcaagc aatcggaaca actcaagccg ttgcttcctt ttaaagtata tccactcaac   960
```

```
tacgtgagta acgagcatga actggttgat gtttacaatg cggtcgacct tttcgttact   1020
ccctcactgg aagagaacct gcccaatacc atcatggaag ctatggcatg cggagtgcct   1080
tgtatcggct tcaatgtcgg cggcatcccg gaaatgatag accatctgca caacgggtat   1140
gtggcacaat acaaatcatc cgaagatttt gccaacggca tctattgggc actgaccgac   1200
ccggattatc cgtctctctc ggaacaggcc aaccgaaaag taatcgccaa ctactcggaa   1260
ggcattattg ccaaaagata cattgatgtc tacaataaaa taacaggaag atatgcatag   1320
```

<210> 2807
<211> 663
<212> DNA
<213> B.fragilis

<400> 2807
```
caaccgttat ttataagaga cgagatgaaa gagaccgatc ttttagacga atatatcttg   60
cagcatatcg atgaggaagg tgaatacctg aaatctcttt atcgggatac gcatgttaaa   120
ctcctgcgtc ctcgtatggc ttccggtcat ctgcagggac gtatgttgaa gatgtttgtt   180
cgtatgatac ggcctcgcca aatattggaa atagggactt atagtggcta ttccgctctt   240
tgtctggccg aggggcttga ggagggcgga atgcttcaca cattcgagat taatgatgaa   300
caagaagact ttacccgtcc ctggctcgaa aactcagctt atgctgataa aattaaattt   360
tatattgggg atgctcttcg gttaatacct gcattgggca ttacgtttga tcttgctttt   420
gtggatggtg acaaacgtaa gtatattgaa tattatgaaa tgactcttgc acatctttct   480
gtaggaggtt atatcatagc tgataacact ttgtgggatg gtcatgtgct tgaagaacca   540
catagcaatg atcaccagac gatcggaatc aaggctttca atgagttggt ggcacatgat   600
gaacgggtag aaaaagtaat tctgccttta cgtgacgggt tgactataat tcgtaaaaag   660
tag                                                                  663
```

<210> 2808
<211> 252
<212> DNA
<213> B.fragilis

<400> 2808
```
caagttctat tagatattcc tgtttcatat ctttttatca tcaagtcgga taggtttatg   60
tggtggaact acatgaaagt tttaatgttt aacactttga atccgaacaa tctttttaga   120
caaagaccat ccggattcaa cctacccatg attattttat atattaagtt ggattctcaa   180
aacgcaaaaa ttgaccagaa aactttaata gggcatctcc cgtctttcca ttacgatttt   240
tggagactat aa                                                        252
```

<210> 2809
<211> 306
<212> DNA
<213> B.fragilis

<400> 2809
```
tgccaggtat tcattaatcc gatgcaattc gggccaatta atgacgctcc atatttatta   60
acagtttcaa gaatgcgctc ttccaataaa gcgccttcct gcgtttcttc tccaaatccg   120
gccgaaagaa ttatgaaagc ccgcgtctgc ttctctgcgg ccagtgtttc caccacctcc   180
ggacaaagaa ctgcaggaat agcaagaata gcaagatctg tatcgggtaa ctcctttgca   240
tcggcaaagg aaggcactcc ctgcacttct gtttctttgg gattgacagc ccgaagttct   300
ccctga                                                               306
```

<210> 2810
<211> 990
<212> DNA
<213> B.fragilis

<400> 2810
```
cttggatttt tggaaagaaa tataaagaat atgaagattt ctaataaata tgataggctt   60
gtccgcaaat tgattgcagg tgagtcttct tcggaagaaa tggaagagct ggcacattgg   120
```

```
aatgttgtgg agacgaaaat gaaaaaacaa ttcgatgcgg caaaaaatat agtggaaaat    180
ggtgctattg aaagaaggat ctgggataag attgactcca gatgccaggc tcctgttgag    240
cgtagtcaga aacttcaact cagatattgg aggggttgcac tagctgcatg tattacggct    300
ttattgatta tcggaggtgg tattttcttt tttgataaag ggcatacagc ttcacagcgt    360
ataactgagt atactgaagt tgtttcttca aatagccggt tgtatatact tcccgacagt    420
tcaaaagtct ggatacaggc tgggagccgt cttcgttttt cacaggattt tatgagtaac    480
cgggaagtat ggctggaggg agtgtctact tttgaagtaa ctaagcgtaa aggccataat    540
tttaaagtat atatcgatca ggcatttgtc gaagtcaaag ggacggtctt tcgtgtgcag    600
tctacctgtc aggatggtgc ggaggtgact cttttttagtg gaaaggttga cttcaatgtg    660
aaggcttcac agagaaaagt tgaaatgaaa cctttgcagc agattgtttt tcatcccgaa    720
aaagatgaag tgatattaaa gaacataggt aatatcagtt gggatgaagg gcgttataaa    780
tttgtcgaca tgcgcatgga tgatttaata gaagctattc atgatattta ccacattccg    840
gtagaactcg ataggaaagt agctcgcaat gacttgttca cgggttatat gcgctatgat    900
gaccctgcct ctaaagtcat cgaaaagatt tgtattaata tgaatttgaa atttaaaaaa    960
gaaacacaga aaatcattat ttataaataa                                     990
```

```
<210> 2811
<211> 273
<212> DNA
<213> B.fragilis
```

```
<400> 2811
atcttttttt catctttaca agttcaaaaa caatgtttta tgaagtcaga gattgattta    60
tttgtaatta ataagattaa agaaaaaagg aaagagctaa aagtgtctca gcgaggtatg   120
gctgagatac tggattgttc tgctggcttc ataggacaag tcgaaagtga aaactccgat   180
accaaatata gtgtttatca actttatctc attgccaaag atttcaactg ctcaccagca   240
gatttttttcc ctcccttcaa tatcaaagat tag                                273
```

```
<210> 2812
<211> 2499
<212> DNA
<213> B.fragilis
```

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<400> 2812
atgaaaaaat ttcttcctga cctgattgcc attctggcat ttatagttat ctctttcatc    60
tatttcttcc ctgctatcac cgaagaccgg attctcttcc agcacgacac cgtggccgga   120
gccggagccg gacaagaagc caaagaatat tatgagagaa caggtgaacg tacccgctgg   180
accaatgcac tcttcggagg tatgcctacc taccagatgt ccccgagtta cgactctacc   240
gagccgctga catttgtaca gaaagtatat cacctttttc ttccgaacta cgtatggctc   300
acatttatca tgatgctcgg gttctatatc ctgctaaggg cattcggcat accggcatgg   360
ctcgcagggt taggaggaat catttgggga ttttcgtcct atttcttcat tctgatagct   420
gccggacata tctggaaatt tattactttta gcctatattc cacctacgat agcaggtata   480
gtacttgctt accgaaagaa atatctgtta ggaggtatta tcaccgcttt attcatggct   540
atgcagatat tgtccaacca tgtgcagatg acttattatt tcttgtttgt tattctttc    600
atggtaggcg cattcttcga agacgcctgg cgaaaaaag aactcccca attcttcaaa    660
gctaccggcg tgctgattgt tgcaggactg attggagtat ccatcaacct ctcaaaccta   720
taccacactt acgaatatag taaagaaacg atgcgtggta aaagtgaact gaaatatgaa   780
ggagctgccg ccaaacagac tagtagcggc ctcaaccgcg attacatcac tcaatggagt   840
tatggtatcg gtgaaacatt ctccctgctg gtccccaatg tcaaaggagg tgcttccgta   900
ccgctgtcac gaagtgagaa agcaatggaa aaggctaatc cgatgtatag cagcctctac   960
tcacagctaa ctcaatattt tggcgatcag ccgatgacaa gtggtccggt ctatgtaggc  1020
gcattcgtac taatgctttt catttttggga tgtttcattg taaaaggtcc tatgaaatgg  1080
gcactgctgg gagctaccat cttctctatc ctactttcat ggggtaaaaa cttcatggga  1140
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attttggtaa ttgccgagtt tactattcct ttgctcgcca tccttaccct gaaggaaata  1260
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ccagataacg aaatggcagc tctgcaaaat gccctgcctg ccgaccaact atcgcccatt  1440
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```

```
tttatcgtca ccatcggcac cctgctttta ctggcctata acgccaaaaa gctgaaagca    1560
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cgttatctgt acgacgaaca gtttatcccg aaatcagagc agactgctac attccggaaa    1680
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gcgggcaata catttgaaga aaacaatacc tcttattggc acaagagcgt aggcggttat    1800
catgctgcaa agcttcgccg ttatcaggaa atgatagacc atcacatcgc taaagaaatg    1860
caggcagcct atcaggaagt agctacagcc ggtggacaaa tggatagcgt aaacgctgct    1920
aagtttcctg tattgaatat gctgaatacg aaatacttta tattccctgc cggacagcaa    1980
ggtcaaacag tccccattga gaacccatat actttcggaa atgcatggtt catagataaa    2040
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caaaccgcta tagtagactc taagtttaaa gaggcactga aaggagtgaa cgaggggtac    2160
aaagactcac tgtctacgat tcgtttgacc agttatgaac ctaaccaatt agtatacgag    2220
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gcaaccattg atggcaagcc cgccgatatt gcccgtgcag actacatttt acgtgctatg    2340
aatgtcccgg caggtaaaca caccatcgaa atgcgttttg atccgcaaag cctgcatatt    2400
acagaaggta ttgcatacgg agcgatggcg ttattgctgg taggagtaat aatcctgata    2460
tggatctatc gaaaaaaata tagtgaaaac agcaaataa                           2499
```

<210> 2813
<211> 489
<212> DNA
<213> B.fragilis

<400> 2813

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caattggaat ttacatttat tattatggaa aaaatagaca accttgacag gcagattctg     60
gagattattt ctcagaacgc ccgtatccct tttaaagacg tggcagcaga atgcggcgtt    120
tcacgtgcgg ccatccatca acgcgtgcag agactgatcg atctgggagt cattgtaggc    180
tctggttatc acgtaaaccc gaaatctctg ggatatcgta cctgtactta tgtcggtatc    240
aaactggaaa aaggatctat gtataaagct gtagtggccg aattacagaa aattcccgag    300
atcgtagagt gccacttcac aaccggccct tacaccatgc tgaccaaagt atatgcacgc    360
gacaacgaac acttgatgga cctactgaac aacaaaatgc aagagatacc gggagtaacc    420
gccaccgaga ccctgatttc tctggagcaa agcatcaaga aagaaattcc tattcacgca    480
gataagtaa                                                            489
```

<210> 2814
<211> 1254
<212> DNA
<213> B.fragilis

<400> 2814

```
aatataaatt caaaatatat gaagcagcta attctttcgt gtatatttgt cttgggattt     60
ttctttcttc caattcttgt gagtggtgca gatgctcaag aaaattatct gtttagcatt    120
tccggtgaga tagacggatt aatgcccaat gatactcttt ctttctggaa aaccactctt    180
ccctataaag gagaggaggg ggaagtcgct tttaacgtaa ttgtaagtga acccaataaa    240
ttctgttact caggtgaaca gccacatact caatgctata gtatgatata taaacccgtt    300
tcaggtgaat ctcaagcaag ttcacgacag gctctgatga ttattgtgga agaaggggac    360
tatcacctaa agggagaaac cgactttata tactatagtg ctatcagtgg cggactgtac    420
gatgatcctt cgttgaaaga aatagtacac atggaagact ctttggagat catacggaca    480
agatatcgaa agattgtcga tgaggcaaga aagaaaggtg atatggagaa ggctaaggaa    540
tacgttgata gttcaatcg ttttcatagt aatcatcaag aatcttacgc tctcttacag    600
cgaaagacaa aagaattggt agcaaacaat ccatcatcta cttgggtgat agtggaatat    660
cttcaaaaag tttcatatgc tgctccggaa gaaatgaaat ctgtgctgtt gaacatggac    720
caagaggccc agaatagtta ttatggacag atatttaggc gggaggtgga ggcaatagaa    780
agactcgctc ccggtaatga agctccttta ttctctgtta ctactactga cgggaaaagg    840
attacttctg acgataccag aggtaaatat cttcttctat atcattgggg actttgtccc    900
ggttctattt ctgttgataa gcgagtcact gtctttatg aaaaatataa ggatcatctt    960
tccgtagttg gaataacgga taatatggaa actatttgtg agctgaataa aaatgtggga   1020
gaagatgatg aggtattggg gatgaaattg aaacctgttc ttgaaaatat gctggcgcat   1080
ccctggcctg aagtagaaag tacgggagat aatcataaaa ttatagaaga ttttgccttt   1140
```

```
gcaggtctac cttactttgt ttttatttca ccggatggga aaattatctc tcgtgacttt    1200
cgtaaagctt ttgacaaagc acaggaggtg atgaaatcgg agtttgatga ttga          1254
```

<210> 2815
<211> 387
<212> DNA
<213> B.fragilis

<400> 2815

```
agatccatct ccacatccac atacaggtcg tctccaagac gcttgaatac agagtcttcg    60
gctatcttga aagtgatata caggtctcct gcagggccac cgttgatgcc ttcgcctccg    120
tatcccttca acttaatcac ctgtccgtcg gctacaccgg ccggtatcgt aatacgaacc    180
tgtttgccat tcacattcaa cacctgtttg tgggtccggg ccgcatcgcg aagagacagg    240
tgcaattctg cattaaaatc ttgtcctcgg aagcctgcat tgcctcgtcc gcctcctcct    300
ctatgtccga acatagattc aaagaagtcc gagaatcctc cggcatcacc acccgagaac    360
ccctctccat cggacgagta ccaataa                                        387
```

<210> 2816
<211> 1908
<212> DNA
<213> B.fragilis

<400> 2816

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acgaccacaa cgagccgcgt tcgtacgatg acatcgggtt acgtaaagag gactttgaga    60
tgttcggaaa gatggggata cgttgaaaat gccgggctaa cgtgcaatcc ggcaaggagc    120
aggattcact acaggtttga tttcgggaga taccttggga tagataagtg tcagcatctc    180
gaaactttgc ttcctttcgg tacttttgtt gtgtttgtg ttgaaagtag gagaataata    240
tctatattta ctgtcgattc atcacaacat gcaattatga caatccaact actattggtg    300
acgggagtaa cagactgtct gtggctttat gtattatccc tgcttttgtt tctgaccgtt    360
tgcttcctgc tctatcagaa cttcctgctt cgtaagtcgg cttcggctga tgacgactat    420
cgtcgtttcc tgtttgatat tttagataat ctcccgtttc ctatcatggt gaaagatatt    480
caggaacaat tcaagtatac ctactggaat aaagaatccg agttacagtc gggcatcagc    540
cgcaaagatg ccgtcggctt ctccgatgtc gatatctttg gtgaagaaag ggggaagcag    600
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tatgttactg ctgacggaaa agtgcacgat acacttgtga tgaagtcgat catatcttcg    720
ggtaaattgg gtaaatggct gttggtggcc cgttgggaaa tcacccagct gaaaatgtac    780
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gaagagaccg gtaatattaa aaatctagtt tccggacgcc attatactcc cggcactgtt    960
tgctaccgga ctacggggca gggaacccaa ccgtgcggga aatgtgcttt tcgggaggct    1020
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accgccaccc ccgtttatga tgatacggga aacgaaatta tcggcggact gctacgcttt    1140
gaagatatta ctgagaaact gaaagtagaa cgtatgttgc aggaagccaa agagaaggcc    1200
gaagagtcca atcggctgaa gtcggcgttc cttgccaata tgagccatga aatacgtacg    1260
ccgctcaatg ccatcatcgg tttctccgat ctgatttgcc agacggacga tgctgaagaa    1320
aaagaggagt atatccggat tgtcacttcg aacaatgagc ttttactgca attgatagat    1380
gacattctcg acctgtcgaa aatagaagcg gggacaatgg atttctctta tgccccgacg    1440
gatatcaatg aactgatgga agacatctgt ttacagatgc agcagaagaa tcaacgcccg    1500
gaggtgcaga tcatgtttac tgaaaaagaa cccggttgcg taatcaatac cgaccgtttg    1560
cgcttgtcac aggtcatcat gaatttgatg aacaatgcaa tgaagttcac ttccgaaggt    1620
tccattactt tgggctatcg gctgaccagg caaaaggacg aactttattt ctttgtaaag    1680
gatacaggta tcggcatccc tgccgatcag gcgggaaagg ttttcgagcg ttttgtcaaa    1740
ctgaatactt ttatcaaagg taccggactg ggacttgcca tctgccgggt gattatcgaa    1800
cggttgggag gaacgatcgg agtggagact cgggaaggaa agggttcctg cttctggttc    1860
cgtcttcctg tcagagagga tatgctgctc gaaagccctg tccgttga                 1908
```

<210> 2817
<211> 234
<212> DNA

<213> B.fragilis

<400> 2817

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ggaaggacaa ccgatagagg acttgggcaa tacacaagtc ttttttgcct tacatccctg    60
aacgggttgt tgaacgagga gaccatggtc aagttgaaag actggaactc tttcttaaga   120
aagaccctgg tagaagtatt gatggggagc accccgttgg cgcaaaatta ccaaagggat   180
tcggtatttc gttgggaagg acccctgtat tgccccgttt caaagggaca ccgc         234
```

<210> 2818
<211> 3201
<212> DNA
<213> B.fragilis

<400> 2818

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aagaaccaaa caaaaccttt attattaacc caaaacaaaa ttgttatgtt aaaaatcact    60
agacaagtta ctctgctctt gctcgccggt gcattaagct tcccagctta ttcgtatgca   120
acgcaagcaa cagaagtatt ggttcctgaa gttactcaag agaaagtgac aggaacagtt   180
gaagatgcat tgggtccggt tattggtgcc agtgtcatgg taaaaggcac gaccaatggt   240
gtcattacgg acttagaagg taagttctcg ctgaatgatg tgaaaaaagg agatattatt   300
gtaatatctt acatcggata cgttacacaa gaaatacctt atacaggaaa acctattcaa   360
gtgaaacttg ccgaagacag caaggctttg gaagaagtag tggtagtcgg ttatgccacc   420
gtaaaaaaag ccaacctgac cggagcagtg tcggccgtag atggtaaagt gttggaagat   480
cgcccgattg tcaacctcgg acaaggtttg caaggtgcca ttcctaactt aaatgtaacc   540
accagcggac ggcccgggca aggttcaagt ttcaatatcc gtggtactac tgccatgagt   600
ggaagttcac cattggtatt ggttgacggt gtagaaatgg acccgaacct gattaacccg   660
caagacgtga aaagtgtttc cgtattgaaa gatgccgcgt ctgcttccat ctatggtgca   720
cgtgcagctt atggtgtcgt attgattacc accaaaggag gccgtaaaga ccagccgaca   780
caagtatcgt tcgatgcatc ggtttcattc aacgggccta ctacccgccc aacatatatg   840
aactccatgc aatatgctac ctggatgaac actgcgcaac agaacaccgt gggacgcgac   900
tatttcgatg ctgagtggat gcagcatatc gaagcctact ataaagatcc ggtgaacaat   960
tctccggtat ttatccattc ggacccgagt atcagtaaaa acggcaccaa atacacgtat  1020
gccggcaata caaactggat gaaagaattg tataaaaaga actatcccgt ccagaagtat  1080
aatgtcaata tcagcggagg tggaaagaag gcaacttact acacatcctt aggatatacc  1140
gaccagggat cactgattcg tttcggtaac gaacagttca agaagttcaa tgtgatgaac  1200
aacatcaatt atgacgtgaa cgactggtta cacctctcga tgaagacaag ttttaaccgc  1260
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acgttcaatt actacagtga aaacaataag gttcacatga agtcatttga cgaatatgga  1560
gccaatggac aattcctgca aacttttgca tggacgaatc cgaattctgt gtcacaatca  1620
caagccaacg atacatacaa tgctttcaac ttcttcggtg attacgaaaa aacattgggt  1680
aaacattacc tgaaaggaat gatcggttat aatcaggaaa gcaaacatac taccggattc  1740
aatgccggac gcgaacagct gatctcaaac gatctgggat ctttaagtta tgctacagga  1800
gaccgctggg taggcagcag tgataactcc tgggctacac gaagcggttt cttccgcatc  1860
aactacggat atgacgagcg ctatttactg gaagtaaacg ccgttacga cctctcttcc  1920
aaatttccca agcacgaccg tgccgtattc aacccttcgt tctctgcagc ctggagactc  1980
tctaacgaaa gttggttcaa gagctggaca aacagtttct tcgacgaact gaaaatcaga  2040
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acgtccgata ttcttgccgc aggtaaaatt ctaccgggcg ttctgggtgc gaacgaacct  2340
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gcagccaatc aggacaaagt atcgggaggt atcaaactga tgcccggtga catccgtttt  2640
gtagaccgta ataacgacgg cgttatcgac tggggtgaca acaccgtaga taatccgggt  2700
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```
gataagaaaa tcatcggcaa cagcactccg cgctatcatt acggcatcaa cctgggagcc    2760
gactggaaag gtttcgacct aggtatcttc ttccagggag tgggcaaacg tgacctctat    2820
ctaccgggaa cttcattccg aagccactac ggaagcgaat ggcaagtacc ttcagcctac    2880
aacaacgatt actggacaga agaaaatacg ggagcatatt tcccccgtgc gcgtttcaat    2940
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ctgaagtcag tcagcatcgg ttatacattg cctaaagtac tgactcaaaa ggcttctatc    3060
gaaaagatac gtatctattt caccggtgaa aacctttttca ctatttcaga taccccccgac   3120
ggactcgatc cggaattgga taacccatac acatatccga tgcaaagatc attatctgtt    3180
ggtttaagtc tcacattcta a                                              3201
```

<210> 2819
<211> 207
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2819
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accaatgacg ggtacagcct tatttcttct gacggactgc aacccggaga caaaatcgta   120
tcttcaggag tacatcatat agaaaacggg gaaaccgtaa aaactctgcc tgaaatcact   180
cacacaaata taggaggact gttataa                                      207
```

<210> 2820
<211> 621
<212> DNA
<213> B.fragilis

<400> 2820
```
aaggaaaccg cgaacagttt ctcgtgttgc acaccagcgg gtcacacttc aactatcggc    60
aacgatatcc tgcggaaggt gcgttttttcc aactatgaca gtcctgccga tcagaattta   120
aggtatcagc ataatgtgat taatgcctat atcaattcca tccgttatac cgacgatttt    180
ctgtcaaggc tgatcgtcgt gctgcagcaa caggatgctg ggtcggatat actttatact    240
tcggatcatg gagaagatat ttgtgacgac cattgtcatc tcttcgtgca tgcgtctccc    300
gtgcattcca aatatcagtt gcatgtaccg ttcattgtat ggacttcgga cacctatcgg    360
gagaagtatc ctgagcatat ggacgctata cagaagaatc gtcacaaatc tgttgtttcg    420
aaccgggtgg tgttccattc ggtactcgat ctggccgggg tgaccaccac ctatgtaaac    480
gattcattat cggtggccag tccgtcctat acagagttcc cccgtttta cctgaacgac     540
cacaacgagc cgcgttcgta cgatgacatc gggttacgta agaggactt tgagatgttc     600
ggaaagatgg ggatacgttg a                                             621
```

<210> 2821
<211> 201
<212> DNA
<213> B.fragilis

<400> 2821
```
attccttttc tgattgatag aggggaatcg aaaattctct gcctgaaacc ccagaccatg    60
aacattccga acacctctta tgaagtggat ttcgaacggg gtaaccccat ttttttaaaa   120
gcccttaggg cccggttacc cttcggaaag ctttgggatt tgggtatccg gatcaataac    180
cggaccttcc agccattttg a                                             201
```

<210> 2822
<211> 849
<212> DNA
<213> B.fragilis
```

&lt;400&gt; 2822

```
atgtctgttt acaaaaatac ctcctttgtc ctacccctgc aaaagaagtc gaccaagaag    60
gctcttttga cgataaagtc acctgcaaag gaaatagaat caacaaacag agggatttta   120
tcagtaatta tctatctttg cagcccgaaa aagataccta tcagcaatat gaagaaaata   180
tggatacttg cagtcctgac catctgttcg gttgcaacac aggcacaaga agtttttatc   240
aatgcagacc ttgtcagcag ctacatctgg cgtggaatga agaatggaaa tgcttccgta   300
caacccactt tgggtgtaga gtggaaagga tggaccttat cagcatgggg atcgacagaa   360
ttcagaaatg aaaacaatga aatagacctt acactggaat acgaatataa aaatctgcaa   420
ctgtgtctca acaactattt ctatcaaagc gaaacgagc ctttcaaata ctttcactat    480
actccccgaa ctacgggaca tacttttgag gcaggagccg tctacacagt cagtgaacgt   540
ttccctttat ccataggctg gtataccacc tttgccggaa atgactatcg ggaaaatgag   600
gagcgtgcct ggtccagtta ttgtgaattc agttacccat tcacagtaaa gggagtagac   660
ttggccgtcg aagcaggatt cactccgtgg gaaggagaat atgcagacaa actgaatgta   720
gtcaatgtcg gactttcggc taccaagacc ttgaatattt cctccggatt tactccggcc   780
atctttggca aactgatagc aaacccttac gagaaccggt tctacttcgt tttcgggata   840
agtttatag                                                          849
```

<210> 2823
<211> 930
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (63),(64),(65)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2823

```
aaccttgcat atggtttaat ttggaaccgg tttttaatta agaacagaag aatgatagac    60
acnnnaatgc cttttcggag aattctgctt accagtgata cgtttcaaat acttaaagag   120
ggacaaataa tttcgacatt caataaatgt ggtatcttct attgtcaacg cggcagtgtg   180
gaagtctctt tggaaggttg ccattatcat atcaaacccg gggatgttta tatctatatg   240
gcttctacct tggtgcactt gttgcataag agtgaagatg ccgaggggat tatggttgaa   300
gtggactttt actatattct accgattgta aacaaagtga taaatgtgga aagccagctc   360
tttatgcgga aaaatccatg tgtctccttg tccggtgaac aatgtgccca ttttgaatat   420
ttgctgaaca atctatggga taggataaat gcggaagact gccagaagga gaatgtccag   480
taccagcatc tgaaactgga actgataaaa tcgatgggac agactatctg ctatgaaatc   540
ttaaacatgt attttaccaa ccagcccttg cagcctttac aacaagggaa aaaagatgtt   600
gtctttcaga atttcatgct gtctctgttc cgtttctatc gcaaggaacg tgacgtctct   660
ttttatgcaa ggatgcagca tatcactccc cgttatttct cggccatcat caaggagaaa   720
acaggagata gtgccttgca atggatcgta cggatggtga taaccgaagc gaaacaatta   780
ttggaggaat ctgatctgag cataaaagag atagcggacc aactgaattt tccgacacag   840
tctttctttg gcaaatattt taaacaatat gtgggagttt cgcccaaaga atatagaaac   900
aatactgcga caacgagaat aaaacgctaa                                    930
```

<210> 2824
<211> 2265
<212> DNA
<213> B.fragilis

<400> 2824

```
aatcactcac acaaatatag gaggactgtt ataatggata taagtaaatg ggcattccat    60
aatcgtaacc tgatttattt cctgatagcc gtcctgatgt tcggaggagc ttattcctgc   120
tatcagatga gtaaactgga ggatccggaa ataaaggtaa aacttgccat ggtggtcacc   180
acatatcccg gggcttcggc acatcaggta gagttggagg tgaccgatgt actggaaaag   240
aacatccgca ccatgggaaa tatagataat atagaaagtt attcttataa tgatctgtca   300
cttatacaga ttgaacttct gagcaccgtg ccggatgatg atgtggagca atgctgggat   360
atgctgcgtc gcaaagtcaa tgatgcccgg gcttcactgc ccgaaggagt cagtgctccc   420
```

```
attgtaaaag acgacttcgg gaatgtgtac ggtatgtttt acgctttgac cggtgatggt    480
ttgtctgatc gtgagttgtc ggactatgcc gaactgatta agcgtgaagt cggcgaactg    540
gaaggggtag accggataga tctgtatgga aagcgtccgg agtgcatcaa tatctctttg    600
ttgcaggatc gtatggcaaa tttgggtgta aagcctgctg aagttcttgc taccctgaac    660
ggtcaaaaca agactaccta taccggctat tatgacaatg gtgacaatcg gatccgtgtg    720
actgtcaatg ataaattcaa gacggtagaa gatataggca aaatgcttat tcaaggacat    780
gatgacgacc aactgcgtct gagcgacatc gcacaaatag agaaaggcta tgaagagccg    840
gtccgtaacg aaatgtacta tgacggtgag cgtgcactgg gcattctgat tgccgctacc    900
agtggttcgg acatcgtgaa agtgggacat gccgtagagg ccagactggc tgaactcaag    960
gccgaacgtc tgcctgccgg agtcgaatat caaaaggtgt tctaccaacc ggagcatgtg   1020
ggcgagtcat tgggtacatt tgtcatcaac ctgatagagt cagtcatcat cgtagtgctt   1080
atcctgatga ttgccatggg atttaagagt ggggttatca taggcatcag cctggtggtt   1140
actgttttcg gttcattctt gtttctttat tccgcaggag gaaccatgca acgtgtatcc   1200
ctggctgcct ttgtgctggc tatggggatg ctggtcgata atgccattgt cattatcgat   1260
gggatattgg tagatctgaa agccgggaaa gaccggatgg aggcaatgac cgccataggg   1320
cggcagactg ccatgccgtt gctgggagct acactgatcg ccatcatcgc tttcttgccg   1380
atttatatgt cgccggatac ggcaggtgtc tatacgcgcg atctttttat cgtacttgcc   1440
gtttctttgc tgctcagctg ggtgttggcg ttggttcatg taccgttgat ggctaaccgt   1500
cgtctgcatt ttgccgtaga agcctatagt ggtggcaaac gggtttacaa ggggaagatt   1560
tatgccgcat tacgtacggc acttcgtttc ggattggcac accggtggag ttttgtcttt   1620
accatggtcg gtttgctggc tctttctgtt tttggctatc agtacatgcg gcagggtttt   1680
ttccccgata tggtttacga tcagctctac atggaatata aactccccga agggaacaac   1740
tatacccgcg tagaacagga tctgaaagag atagaagctt acttgaaagg gcgtaaggaa   1800
atcacccatg tcacagcttc catcggtggt actccgggc ggtacaatct ggtgagaagt   1860
gtagctaacc cgtcactctc ttatggagaa ctgatcatcg acttcacctc tcccgaggag   1920
ttggtagaca atatggatga aattcagcgc tatctgtcgg caacttatcc ggatgcttac   1980
atcaaactga agcgctataa cctgatgttc aagaaatacc ccattgaagc acaatttctg   2040
ggacccgatc ctgctgttct tcaccaattg gccgacagtg cacgcaacat catgaagaat   2100
accccgaag tatgtcttat cactaccgat tgggagcctc aaatacctgt cctgaccatt   2160
gaatatgacc aacctgccgc acgcgcactg ggtttgagcc gcagtgatgt cagtatgtct   2220
ttattgactg cttgccgtgg cattcctatc ggatcttttt attga                   2265
```

```
<210> 2825
<211> 231
<212> DNA
<213> B.fragilis

<400> 2825
tgcctaccac aagcaatgcc agtgaaagtc gtccgagaaa atatcccgga agaggatgcg     60
ggccccgcca gcgcatatca agctcctgtt tcggcaaaag gagcggtgac gaatgctccg    120
gaaatgtatt gggaaactcc ctctccctat ccggtaacac ctttccttcc ggatagcggc    180
ggggttgcat cggcatcaga ttctgaaatt gtttatgttg aggaggattg a             231

<210> 2826
<211> 762
<212> DNA
<213> B.fragilis

<400> 2826
tgttttacta attattccgt tattatgatc aaatgcattg ctgttgatga cgagcccttg     60
gcgctcgagc aattgacggg ctatatagcc cgtgtccctt tcctgcaact gatagcctcg    120
tgccaggatg cattcagtgc catgcaggtg ttgtcggaag aagaggtcga cctgatgttt    180
gtcgatattc acatgcccga tctgaacggg ctcgatctgg tgcgttcgtt agtggtgaag    240
cccctgattg tgtttacaac cgcttatccg gaatatgccg tcgagggttt caaggtagat    300
gcagtcgact atctgctgaa gccatttgaa tttcaggatc tgctgaaagc agccgataag    360
gcacgtcggc aatttgagta tcatttgcaa gataacgggg gaggacgga aactgattta    420
ttggaaaagg acggttcatt gttcgttaag tccgaatata agattatccg catcaatgtg    480
gcagacattt gctatataga aggtatgagt gagtatgtac gcatctatac cgatacggcg    540
gataagcccg tagtgacttt gctgagtatg agaaagctgg aagaacgctt accacaggag    600
```

```
atgttcatga gggtacatcg gtcttatatc gtcaatcttc ggaaaataac cgaagtttcc    660
cggttacgca tcattttcaa taagaatata tatataccgg tgggagataa ctataaggaa    720
agatttacag aatatattaa caagatttgt gtcagcagtt aa                       762
```

<210> 2827
<211> 1707
<212> DNA
<213> B.fragilis

<400> 2827

```
gaaatggcta acttttattt agatactccg gaactcaagc atcacttgaa ccatccgttg     60
atgaagagaa ttgttgagct gaaagagcgc aactatgctg ataaagataa attcgactat    120
gctccggtag acttcgaaga cgcaatggac agctacgaca aagtgctgga aattgtagga    180
gaaatctgtg gtgacatcat cgctcccaat gcagaaggtg tcgatcatga aggcccggtc    240
tgcgccgaca atcgtgtgac ctatgccagc gggactaccc gtaacctgga tgcctgccgc    300
aaagcagggc tgatgggcat ggctatgccc cgccgctttg gaggcttgaa cttcccgatc    360
actccgtaca tcatggctgc cgatatcgtg agccgcagtg atgccggttt cgagaacctg    420
tggggattgc aggattgtgc tgaaaccatt tacgaatttg ccaacgaaga acagaagcaa    480
cgttatatca cccgcgtatg ccagggtgaa accatgtcaa tggacctgac ggaaccggat    540
gcaggttccg atctccagtc tgtcatgttg aaagccactt acagtgaaaa agaccaatgc    600
tggtatctga acggagtgaa acgcttcatc acaaacggtg atgccgatat tcacctcgta    660
ctggcacgtt cggaagaagg aacacacgac ggacgcggtc tttccatgtt catctacgac    720
aagcgcaatg gtggagtaaa cgtacgccgt attgagaaca aaatgggtat caaaggctct    780
cctacctgcg agttggtata taaaaatgcc aaggccgaac tttgcggtga ccgcaaactg    840
ggtctgatca aatatgtaat ggcgttgatg aacggtgccc gcttgggtat tgccgctcag    900
tcggtaggat tgtcacaggc tgcttacaat gaagctctgg cttatgccaa agatcgtaaa    960
cagttcggta aggcaatcat cgaattcccc gccgtggccg aaatactttc tctgatgaaa   1020
gccaaactgg atgcttcccg ttcactgttg tacgagacag cccgtttcgt agacgtttac   1080
aaagcactgg acgacattgc caaggagcgc aaactgactc cggaagaacg tgccgaacag   1140
aaaacattcg ctaaactggc tgacgccttc accccgctgg gcaaaggcat gggcagtgag   1200
tttgccaacc agaacgctta cgactgtatt cagattcacg gcggttcggg ctttatgaaa   1260
gattatgcct gcgaacgtat ttaccgtgat tcacgtatca cttccattta cgagggtacc   1320
actcagttgc aggttgtggc cgccatccgt tatgtaacga ccggcgctta cctggcccgt   1380
atccaggaat acgagaatat gccggtagct cccgaactgg aaggcttaca gaaccgtctg   1440
aaaagcatgg caagcaaata cgcggcttgt gtgactcaaa tcacagaggc aaaagatcag   1500
gaactgctcg acttctgtgc acgccgcctc gtagaaatgg cagctcacat catcatgggt   1560
cacctgatgg tacaggacgc ttcaaagagc gatctgttct ctgaatcggc tcaagtatat   1620
gtacgctatg cagaagctga agtagaaaaa catatcaact ttatccgcaa attcgataaa   1680
gacgatctgg cttactacag aaagtaa                                       1707
```

<210> 2828
<211> 246
<212> DNA
<213> B.fragilis

<400> 2828

```
tacattataa aatctatttc tttaaaatca attagtttgg ttatagttct gccaggaata     60
atctgcttta tgtcatttga tttgtactta atgtgttgta atataatgat ctatggattt    120
aagtctaatg tgaatcaggg tttgttgcgt aagagagacg ttataggctt attgaagaat    180
gaagagataa tttcgaataa aatattcaat atttttataa acgaagagct ggatttatta    240
tattaa                                                               246
```

<210> 2829
<211> 954
<212> DNA
<213> B.fragilis

<400> 2829

```
atatataaaa acatggctta tatagattat tacaagattc tcggagttga caaaaatgct     60
```

```
tctcaggatg atattaaaaa ggctttccgt aaattggccc gtaaatatca tccggacctg    120
aatcctaatg acccaagcgc taaggataag tttcaggaga ttaatgaagc taacgaagta    180
ttgagcgatc cggagaaaag gaaaaagtac gacgaatacg gcgaacattg gaaacatgcg    240
gacgaattcg aagcgcagaa gaaggcgcgg cagcataccg gtggaggcgg aggaggattc    300
tccggctttg gcggagacgg cggttcttat tggtactcgt ccgatggaga ggggttctcg    360
ggtggtgatg ccggaggatt ctcggacttc tttgaatcta tgttcggaca tagaggagga    420
ggcggacgag gcaatgcagg cttccgagga caagatttta atgcagaatt gcacctgtct    480
cttcgcgatg cggcccggac ccacaaacag gtgttgaatg tgaatggcaa acaggttcgt    540
attacgatac cggccggtgt agccgacgga caggtgatta agttgaaggg atacggaggc    600
gaaggcatca acggtggccc tgcaggagac ctgtatatca cttttcaagat agccgaagac    660
tctgtattca agcgtcttgg agacgacctg tatgtggatg tggagatgga tctttatact    720
gccgtactgg gtggtgagaa ggtgatcgat acactggaag gtaaagtgaa actgaagata    780
aagcccgaaa cccagaatgg aacgaaagtg cgcctgaaag gtaaaggttt tcccgtttat    840
aaaaaagaag gacagtttgg cgacttgatc atcacttatt cagtcaagat acctaccaat    900
ctgacagata ggcagaaaga actgttcaga gagttacaac agagtatgaa ctaa          954
```

<210> 2830
<211> 1035
<212> DNA
<213> B.fragilis

<400> 2830

```
gaggagagaa aagatatgaa taacttattt gtatattgcg aaatagaaga cggcatcgtc     60
gcagacgtaa gcctcgaact tctgacaaaa ggacgctcgt tagccaatca gttgggttgc    120
cagctcgaag cagtcgttgc cggaaccgga cttaaagata ttgaaaaaca gatcctcccg    180
tacggagtag acaaactcca tgtcttcgac ggtgaaggac tctatcctta tacttcactc    240
ccccacattt caatcctggt caatctgttc aaagaagaac aaccgcaaat ctgcctgatg    300
ggtgcaaccg ttatcggtcg tgatctcggt ccgcgcgtat cctcagccct gaccagtggt    360
ctgacagccg actgtacatc attggaaata ggcgatcacg aagataagaa agaaggcaag    420
gtctacaaga acctgcttta tcagattcgt cctgcattcg gtggcaacat cgttgctacc    480
attgtcaacc ccgaacaccg tcctcaaatg gcaaccgttc gcgaaggagt gatgaaaaaa    540
gccattctgg cagcagacta caaaggtgaa gtaatccatc atgatgtgaa gaaatatgta    600
gccgacaccg attacgtagt aaaagtcatc gaacgtcatg tagaaaaagc aaagaacaac    660
ctgaagggtt ctcccatcat catcgccggt ggttatggtg taggttcgaa agaaaacttc    720
aacttgctgt ttgatcttgc aaaggtatta aacgcagaag taggtgccag ccgtgcagcc    780
gtagacgcag gtttcgttga gcacgaccgc cagatcggac agaccggtgt tacggtacgt    840
cccaaactct atattgcctg cggtatctcc ggacagattc agcacatcgc cggtatgcag    900
gaaagcggta tcatcatctc tatcaacaac gatccgtcag ctccgatcaa tacgattgca    960
gactatgtaa tcaacggaac catcgaagaa gttgtaccga agatgattaa gtattataaa   1020
caaaacagta agtaa                                                     1035
```

<210> 2831
<211> 1887
<212> DNA
<213> B.fragilis

<400> 2831

```
catatcatga aaataaacaa actactgtat gccggagctg ccctgaccct acttggcgcc     60
tgcgctccag ctgtgaaagc tcccgaagcc atcttacccg ttcccgaaga gaaacaagta    120
gactggcaga aaatggaaac gtatgctttc gttcactttg gtctgaacac cttcaacgac    180
cgggaatggg gatacggcga ttcggaaccg aaaacgttca atccaaccaa actggactgt    240
gaacaatggg tgaaaacgtt tgtcgaatca ggcatgaagg gtgtgatcct caccgccaag    300
catcatgacg gtttctgcct gtggcccacc caattgacgg agtattgcat ccgcaatact    360
ccttataaag acggaaaagg ggacatcgtc ggcgagctgg ctgccgcttg taagaaatat    420
ggcatcaagt tcgctgttta cctctctcca tgggacaggc accaggccaa ttacggcaca    480
ccggaatacg tagattactt ccataaacaa ctgactgaat tgatgaccaa ctacggtgaa    540
gtattcgaag tatggtttga cggggccaac ggaggtgacg gatggtatgg cggagccaaa    600
gacagccgta ctattgatcg taagacctac tacaattatc cgcgaattta cgaaatactg    660
gacaagcttc agccacaagc tatcgtcttc tccgacggag gtcccggttg ccgttgggtg    720
```

```
ggtaatgaaa acggatttgc cggagccacc aactggtcat tcctgcgtgc aggtgaagtg    780
tatccgggtt atccgaaata tcgcgaactg caatacggac atgccgacgg caaccaatgg    840
gtaccggcag aatgtgacgt ctccatccgt ccgggatggt tctatcatcc ggaagaagac    900
gaccgggtaa aaaccgtaga gcaattaacg gacctttatt accggagcgt gggacacaac    960
gccaccctcc tgcttaactt ccccgttgac cgcgacggtc tgatccaccc gatcgattcg   1020
gccaatgcag taaacttcca caagaatgta caaaagcagt tggcacacaa tctgtttgcc   1080
ggcatccgtc ccaaagcctc ggatgaacga ggaggacaat tctctgccaa agccgcaaca   1140
gacgaaagct gggatactta ctgggctacc aatgacggtg tgactgccgc agatatagag   1200
ttcgactttc cgaaaacaga gaaggtcaac cgtatgatga tccaggaata tatcccgttg   1260
ggacaacgtg tcaaatcgtt catcgtggaa tatgataaag acgggaaatg gcttccggtc   1320
aaactcaatg aagagactac caccgtgggc tacaaacgtt tattgcgctt tgaaaccgtt   1380
tcgaccgata aactccgcat acgtttcact gatgcacgtg cctgcctttg tatcaataat   1440
atagaggcct attatgcagg tgaaacagcc gacacattca ccgtggaagc aaaagaactg   1500
aaaagttatc cgtttacact tgtcggagtg cccgaagaag aaactaaaaa atgcatggat   1560
aaagacaaga acaccactgc ttttgtcgag ggagatgcat tggtgatcga tctgggagaa   1620
gaacgtacca tcacctcttt ccattatcta ccggatcaga gtgaatacaa caaaggattg   1680
atttcctctt atgaactatc tgtgggtacc gaagcaaatg cggtaaaccg gatagtagcc   1740
caaggagaat tctcaaatat taaaaacaat ccgattctac agtccgtcta cttcactccg   1800
gtgaaagcac gatacctctc tctgaaaccg accaaaatgg taactgaagg agaaactatg   1860
ggatttgcag aaataggaat ccaataa                                       1887
```

```
<210> 2832
<211> 213
<212> DNA
<213> B.fragilis


<400> 2832
ggatatacac ttacaggcaa ccgaaatccc tgtattgccc tatacaatct gttcatctgt     60
gataaacttc cggcacatgc tcaaaaagag cttcaccaac ctaacatccg gtcattaact    120
gctgacacaa atcttgttaa tatattctgt aaatctttcc ttatagttat ctcccaccgg    180
tatatatata ttcttattga aaatgatgcg taa                                 213


<210> 2833
<211> 189
<212> DNA
<213> B.fragilis


<400> 2833
gtaaaacatt gcaagactaa gacaacaaca ggtcttaaag tctctttcac cacagatgaa     60
cagatttata aggatataca cttacaggca accgaaatcc ctgtattgcc ctatacaatc    120
tgttcatctg tgataaactt ccggcacatg ctcaaaaaga gcttcaccaa cctaacatcc    180
ggtcattaa                                                            189


<210> 2834
<211> 1308
<212> DNA
<213> B.fragilis


<400> 2834
aaacaatact gcgacaacga gaataaaacg ctaaaatata gcagtaaaga tagacgttca     60
tttccatatt tggggatatt cagctatctt tgtcgcataa atattaataa aaacgacata    120
ataatgaaaa agacaatcct cctggccgct ttaggcctga tcagtctgag tgcattgggc    180
caagacaaac cacaagaaga aggcttcgtt ttcactactg tgaaagaaaa cccgattaca    240
tccattaaga atcagaaccg ttcgagcact tgctggagct tctcaagcct cggttttctc    300
gaatcggaat tgctccgcac aggaaagggg gaatacgatc tttctgaaat gttcgttgta    360
caccacacga tggttgaccg cgctgttaac tacgttcgct atcatggcga cagttctttc    420
tctccgggag gaagtttcta tgatatcatg ttctgtatga agaactacgg acttgtaccg    480
caggatgcta tgccgggaat catgtatggt gactcactgc ctgttcacaa cgaactggat    540
gcaacagcag gagcctatgt taatgctatt gccaaaggta atctgaagaa actgactccg    600
```

```
gtatggaaga agggcctttg cgctatttat gatacttacc tgggacaatg cccggaaaag    660
ttcacttaca aaggcaaaga gtatactccg atgacttttg cacagtcttt gggactgaat    720
ccggacgact atgtatctct gacttcgtac acacatcacc cgttctactc tcagtttgcc    780
atcgaaatcc aggacaactg gcgtaacgga ttgtcataca acctgccgct cgacgaattt    840
atggctgtaa tggataacgc cgtaaagaac ggatatacat ttgcatgggg tagcgacgtg    900
agcgaagaag gatttacccg tgacggtatc gctgtagttc cggatgcagc caaaggtgcc    960
gaactgacag gatcggacat ggcacgctgg acaggaatga ctgctgccga caaacgcaaa   1020
gagttgactt caaaaccatt gccggaaatg aaaatcactc aggaaatgcg tcagacagct   1080
ttcgataatt gggaaacaac tgatgaccat ggaatgatta tctatggtat cgctaaagac   1140
cagaacggca aagaatactt tatggttaag aactcttggg gtacaaacaa caagtacaaa   1200
ggtacttggt atgcttctaa agcttttgtt gcttacaaga ctatgaatat tctggttcat   1260
aaagatgccc ttcccaagga tatcgcaaag aaactgggaa ttaagtaa                1308
```

```
<210> 2835
<211> 189
<212> DNA
<213> B.fragilis
```

```
<400> 2835
gctgggaagc ttaatgcacc ggcgagcaag agcagagtaa cttgtctagt gattttaac     60
ataacaattt tgttttgggt taataataaa ggttttgttt ggttctttta cattcttcct    120
ttcttgttga ttatcctttc ttatttcttt aaaaatggat tagttctggc agaacttggt    180
gaaatgtaa                                                            189
```

```
<210> 2836
<211> 753
<212> DNA
<213> B.fragilis
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<220>
<221> unsure
<222> (719),(720)
<223> Identity of nucleotide sequences at the above locations are unknown.
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<400> 2836
aagccgctca ggacattagt ctttcttttc ggggtaagtg gcactatcaa taaaatatac     60
gtgaaagacg gggcgcaggt acgagcgggg cagctcctgg ccgaattgga tccgactgac    120
tatcaggtac aactggacgc tacggaagct gaataccgtc aggtaaaggc cgaagcggaa    180
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gatatttatc cgggagaaac ctacccgtta caactgatca gtgtcactcc taaagcaaat    540
gctaatcagt tgtataccat gcgacttcag ctaatacccg gaaacaggc tgttccttct     600
cccggaatga atgccatggt gactatcttt tgcgatacag atcgctccgg tacgttatcc    660
gtccctacca gtgccatctt gcagaaagac ggaaagtcgt atgtctttat ctacaatgnn    720
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<210> 2837
<211> 972
<212> DNA
<213> B.fragilis
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<400> 2837
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ttggcaaaac aagttcccga cacacgaaac gttgggaaag atgccatgaa agccgacgga    180
actattaacc gtgcggcact ccctgccatc ttcaacccccg aagacctgaa tgctctagaa    240
```

```
caggctctcc gactgaaaga tgctcaccca ggctctaccg ttaccatcct gaccatggga    300
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accgagaagc aacagggtaa cttggactac accgatctgt acgacacccg tgactacttg    780
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ggttcgccga caaaggtaaa agcgatccag aacatcgtgt tccaagcgaa agagagtaaa    900
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actattggat aa                                                        972
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<210> 2838
<211> 4047
<212> DNA
<213> B.fragilis

<400> 2838

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aaaggtactt tcgcaagaga cctgaaagag aagaaagtaa tgttcgataa acctgtgaaa   3960
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gccgaactga ctatcctggc tgaataa                                       4047
```

<210> 2839
<211> 234
<212> DNA
<213> B.fragilis

<400> 2839

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ctctctccca ataagtgtac aaacaactct attatctact tttttgcaag agaagccgat   180
cgctgtgtct tcatcaagga agattcgttg actcccggtc agaatctttg gtaa          234
```

<210> 2840
<211> 1221
<212> DNA
<213> B.fragilis

<400> 2840

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tctgtgccgt ggtgggtga ttatctgttt gcttccatta gcccggtaca tacgtttagt   180
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tcattagcag gagtcgtgac tctgcttttt attttgtatc cttctatcaa tcctcctcaa   360
cataaacaat ttcagaatct gatgccgatg caaccccgcc gctatccgga aggaaaggtg   420
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cgatctgtgg aacaacacca cggcatcggg ttggagaata tccgcaagcg gctgaggctg   1140
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```

\<210> 2841
\<211> 321
\<212> DNA
\<213> B.fragilis

\<400> 2841
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ggcgagcact atctgcttgc gtcgcaactt ccggatgtgg aacgatacag ccgtatgtat    180
tatgacctgt ccatcaatat ggaaggtatc gatgccattc atcatttgct ggaaaggatg    240
gaaatcatgc gaagggaaat cagttcgctc cggaaccagc ttattgtctt taagagagaa    300
ggcattatgg aggattggtg a                                             321
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\<210> 2842
\<211> 1764
\<212> DNA
\<213> B.fragilis

\<400> 2842
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tcgggttgta atgacggttt cctggaaaga gccccggaag cgatcaatga caaaaccttc    180
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ggtgtaacct cgatagcaga cggtgaaagt gacaatcagg tgcccaacag tattcctcag    300
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aagtatcata ccgaattggg atgggcagac aaagctgacc gcctgctgaa aatggctgct    780
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ggatataaat ccatcaaata cttcataccg acagacaaag ctttcgaagc aaacaataat   1260
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<210> 2843
<211> 189
<212> DNA
<213> B.fragilis

<400> 2843
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attctgagca acttgtcgga ctcttacgat catgaataca gggttatcgt caactttcag   180
atcttttaa   189

<210> 2844
<211> 201
<212> DNA
<213> B.fragilis

<400> 2844
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ggttttggcg cagtctacgg agtaccgatc ggagcattga tgatggaaca atatttaaaa   120
gggaaactct ctccggagaa tgagatacgt gcagaagaat atagtaatag agtgattatg   180
tatggaaacg aggagcgtta g   201

<210> 2845
<211> 1314
<212> DNA
<213> B.fragilis

<400> 2845
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ggtgatcgtg actttctgga cttttcaaca cgtgccggta ggcagttgt gtggattatc   180
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<210> 2846
<211> 1041
<212> DNA
<213> B.fragilis

<400> 2846
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gccaaagaat tggtggtaag tacacttggc gtactctata caaatgatgc cgatgccgat    840
gtagtcagtt tggccgaacg aattccgatt acaccgcttg cggcatttag ctatatgctg    900
tttgtgttaa tctacttccc gtgcattgcc acgttggtag ccatcaagca ggaatccggt    960
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<210> 2847
<211> 285
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (156)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2847

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aaggaaaatg ataacccttg tgcgagttgt gcaagtggct gtgaattaaa ggatatgatg    240
gaaagaacc agaaagaatg ttcgttcaag aaaaagatta catag                     285
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<210> 2848
<211> 2493
<212> DNA
<213> B.fragilis

<400> 2848

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tattttaagc acataggtag agaagaaggt ctttcgcaat cgtccgttat ggctatctat    180
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```

<210> 2849
<211> 744
<212> DNA
<213> B.fragilis

<400> 2849

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accgacccca cgaaatggat aacccggtat caaagtgaaa tagaccgata ccaaacagaa    180
aaccaaatgc tgaaggatac ctcctgtgac gtactctttc taggcagttc ttccattaac    240
ttgtgggata atatctatcg ggacatggct ccgctaaaga ttctccggcg ttcgtacgga    300
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cgcagtattg tgatttacgt agaaaatgac ctcgcaggca ctcccgagga cctgactgta    420
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attccgatat ttattctctc ctataagcct tcactcgcac gcaaagagat gattccgaag    540
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attgacgtag cctcctgtct gtacgacaac aatggaaagc taagaaaaga catcttcaaa    660
caggacggat tgcacatgaa tcagaacggt tacgatctgt ggactgctat cctgaaaccg    720
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```

<210> 2850
<211> 570
<212> DNA
<213> B.fragilis

<400> 2850

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tttaacgaaa tgcgaaatct cacactggta aaccgtgaat actgcattcg caacccgaag    180
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atgggagaca aagtattcgg tccttacgga ttctatgacg ctttcagcga aactgccgat    420
tggtatccga agcgatatct ggccatcgac caaggcccga tagccgtaat gatagaaaac    480
```

```
taccggacag gactattgtg gaaactcttc atgagccatc ccgatgtaca aaacggacta    540
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```

<210> 2851
<211> 1680
<212> DNA
<213> B.fragilis

<400> 2851
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tttcgcactc ctttaactct tattataagt caggtagagc ttatgttaca aaagaatacg   180
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cttctaattt cagaattgct tgactttcgg aaattcgatc agaactatat ccaattaaaa   300
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gaaatatccg atagattagg tttcggttct ccacgctatt tcagccgttg ttttaaaaat   1620
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<210> 2852
<211> 3027
<212> DNA
<213> B.fragilis

<400> 2852
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gttgaaaacg gagatgcgat cacagcagtc ccccaacagc gcagaacggt taaaggtatt   180
gtaaaagatg caaatggaga accgattatc ggagccaacg tcattgtgaa aggtaataaa   240
actattggcg tcatcacaaa cctgaacgga gaatttagtc tcgaagtacc gtccaacgca   300
acactgcaaa tctcttacat cggctatctt aataaagaag tcaaagtaag tggcaaccag   360
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ggacttcaag ccagttcagg ctcggcaatg ccgggagaag ataacacaac cttacgggta   600
cgtggtaacg gcacaatgaa taatgcctca cctttgatta tcatagatgg tatggaaggt   660
tcattgaatg ctattaaccc tcaggacata gaaaatatct ctattctaaa agatgcagct   720
tcctgtgcta tttatggtgc ccgtgctgcc aatggagtca tcttagtcac aacaaaaagc   780
ggtgatcgag acaaaataca ggtaaactat agtggacgca tctctttcaa cagcccgaca   840
cgcatgatcg aaacgatgag taactatgcg gattatatgg aattaatgaa cgaatcttgc   900
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```
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tcaggaggat ctaacaaaat tcgtttccta ttgtcagccc gctatcagga taatgaaggt   1140
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tggtatggtg aatacatcta tgccgactcc aaatataatg gagtatatgg cgatgataat   2820
gactatactt tccaaaaaac ttccaataag cctaaataca attttcgttt tcaggccttc   2880
tgccgcatgg aaagaattcg accttctcta tggtatggca ggaacttgcc ggatttaaca   2940
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<210> 2853
<211> 936
<212> DNA
<213> B.fragilis

<400> 2853

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<210> 2854
<211> 273
<212> DNA
<213> B.fragilis

<400> 2854
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aagatccacc ggatgacgga atactgcacc cgcatccctg ccgatcacgt gcccgaccct     180
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```

<210> 2855
<211> 339
<212> DNA
<213> B.fragilis

<400> 2855
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acggcggaag gagtgatgct ccatccgatt aacgacgccg gcctggaaag ggagttagtg     180
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gcccatgccg tcctcagagg atatgagctg atacatcgat ccgtgtactg tccgtacgga     300
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```

<210> 2856
<211> 204
<212> DNA
<213> B.fragilis

<400> 2856
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aaatataaag atataaaaat ccgcatgcac caacgtgccg catggatctc ccagctacgc     180
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```

<210> 2857
<211> 192
<212> DNA
<213> B.fragilis

<400> 2857
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tttgtaccgg tgctgaaaga gcatggagta aaagttcct tttcaaaaag tggtgaccgg     180
gggtgggttt ga                                                        192
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<210> 2858
<211> 1485
<212> DNA
<213> B.fragilis

<400> 2858
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cccgacctga atggattgaa ctattctctc tccgaattta aaaactctaa gggagatgta      60
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gccatctgga tcaattgcca ggttccccag actgtgtcac cgggagtcta tcgtggtacg     300
```

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<210> 2859
<211> 1179
<212> DNA
<213> B.fragilis

<400> 2859

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tatcgtgaat caggttatct gcccgaggct gttatcaatt tccttgctct gctgggatgg    960
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catcgttgca gcaagtcggg tgcaaaaatt gattataaaa aaggtatctg gttcaatcat   1080
acttacattc aacagaaatc tgacaaaaaa aatgcccgaa ctgtttgtac cggtgctgaa   1140
agagcatgga gtaaaaagtt ccttttcaaa aagtggtga                          1179
```

<210> 2860
<211> 2115
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1399)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2860

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acctttttt   ccacactatt  gtttttttt   gtactttcg   caaaaaattc  aagggttatg    60
gaacactgga  agaagaaaaa  tagtttctca  tacaaagatt  tgttatataa  agcgctgatt   120
ttcgtcggta  ctgtggcgtt  cattgtttac  ttcctgcccc  gtgacgggaa  gtttaactat   180
cagtttgaca  ttaacaaacc  atggaagtat  ggccagttaa  tggcaacttt  cgattttccg   240
atctacaaag  acgaagcggt  agtaaaacgg  gaacaagaca  gtcttctggc  ttctttccag   300
ccttactttg  aactggacaa  agaagtggag  aagagtgccc  ttgccaaact  gaaagagaat   360
tatcatgccc  atctgaaagg  catattgcct  tcgacggact  acatccgata  catcgagaga   420
ggcctaaaag  ccatctatca  atcgggagtc  gtatcgacag  aagagatgcg  gaccctcctc   480
cacgacagca  tcttttctgt  catggtgatt  gaagataagt  tggccaacca  acggacgacc   540
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tacgattctg  tgcgtacgga  gacagcccgg  aaagaattgc  tcgacaacta  ctcctgggca   720
aacggagtag  tacaaagcgg  ccagaaaatc  attgaccgtg  gagagatagt  caacaaacaa   780
acctataaca  tcctggaatc  tttgcgcaag  gaatcatca   agcgaagcga  atccatcgga   840
cagaagcgac  tgatcttggg  cggacaaatc  ttgtttgtcg  gcatattgat  actctgcttt   900
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ctcttcgccc  tgatcgtgtt  ctattgtgtc  atcacggcgc  ttatggtgac  aaacaatata  1020
ttcaatgtgt  acatcctgcc  ctatgccatg  ctcccgatta  ttatccgggt  cttcctcgat  1080
tcgcgtacgg  cattcctgac  acatgtcatc  accatactga  tctgctccat  caccctgagg  1140
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tggaaaaacg  aacatccggg  cgaagaaccg  aacgaagaag  ttttcacgta  tccgggtccc  1860
aatccgttct  cgaaagagac  agccatactg  atgatggcag  actccgtaga  agccgcctca  1920
cgcagcttgc  cggagtatac  cgaagagagc  atcagtaatc  tggtagataa  gattatcgat  1980
tcgcaagtac  aagaggggta  tttcaaagaa  tgcccgatca  cattcaaaga  catcgcgacg  2040
ataaaagctg  tattcaaaga  aaagctgaaa  acgatttatc  acacacgcat  cagctatcct  2100
gagttaaaga  agtaa                                                       2115
```

<210> 2861
<211> 324
<212> DNA
<213> B.fragilis

<400> 2861

```
tcgttaattc  cctctttatt  taccgaacat  tcctgtgcct  gcagcgttcc  tatatcaaaa    60
caatataaat  caagcattat  gaattttatc  tggtacattt  tgataggtat  ccttgccggt   120
tattttgccg  gtaagataat  gcgtggagga  ggattcggcc  ttttggtcaa  tctcttatta   180
gggattatag  gcggtgtgct  gggcggttgg  gtgtttgccc  ttctgggact  ggcagcaacc   240
ggaattatcg  gtagtctgat  tacttcggtt  gtcggcgcga  tcttatttct  ctggatagcc   300
tccttcttca  gccgctcccg  atga                                             324
```

<210> 2862
<211> 552
<212> DNA
<213> B.fragilis

<400> 2862

```
gtaaattccc  cggagggggga gttgaagacg  tcaagaaata  gacaaccaag  aacaaaaaca    60
ttatttttcg  aacaaatgag  aaaagcaaaa  ccaaaaaaac  gcgttatcct  tccggatccc   120
gtgttcaatg  accagaaggt  ttctaaattt  gtaaaccatc  tgatgtatga  tggaaagaag   180
```

```
aacacttctt atgaaatctt ttacgctgca ctggaaacag taaaagcaaa acttcctaac      240
gaagaaaaaa ctgctcttga aatctggaag aaagcgttag ataacgtaac tcctcaagtt      300
gaagtaaaat cacgccgtgt gggtggtgca actttccagg ttcctaccga aattcgcccg      360
gatcgtaaag aatcaatctc aatgaagaac ctgattctgt tcgctcgcaa gagaggtggt      420
aaatctatgg ctgataaatt ggctgctgaa atcatggatg cattcaatga acaaggcggt      480
gctttcaaac gtaaagaaga tatgcacaga atggctgaag ctaaccgtgc atttgctcat      540
ttcagattct aa                                                         552
                                                                      552
```

<210> 2863
<211> 486
<212> DNA
<213> B.fragilis

<400> 2863
```
aaaagcaatt taaaatatcg gacgaaggaa tctgtttgtt gcccatgctc cttagagcgc      60
tctgtcggct tactaaaaaa acagctgtta ctactggaag aaatctattc caattactcc      120
tcgtccacag aaggggaaat catcacacaa tctcaccgga cggtgaatgc aaaaaggatc      180
ccgatttctt tttcgtatga aggaggcatc acactcgaca cggaaacatt acactatagc      240
agcccaagtg agaagtttgc aacaacttgg aaaaatatat tatttcacac catttctatc      300
agaataatta tcggactcca taaaagtaat atggaaccgt ccgagtggag agaaatcatt      360
caccagaaca catatcagaa atttcaccgc aaacatagaa ggcgattgcc attatcattc      420
cgtgaacggt atacacaata caaaaacaag gcttccgacg cattcaacca agacgctcca      480
aagtaa                                                                486
```

<210> 2864
<211> 444
<212> DNA
<213> B.fragilis

<400> 2864
```
ttcaccggtc tgaggatgaa taatatcgtg tacggataca cgtccgagga tacgttcgta      60
cagagtagca ataacttcgt cattgttctt gaggtcagta caaaccagtc cgcgaagcgt      120
accgcagtct tcttcattaa taatcacatc atgcgaaacg tcaaccagac gacgagtcaa      180
gtatcccgca tcggcagtct tcaaagcagt atccgccaaa cctttacggg caccgtgagt      240
agagataaag tactccaaca cagaaagtcc ctctttaaag ttagacaaga taggattctc      300
gatgatctga ccaccttcag cacctgcctt ctgcggtttt gccatcaaac cacgcatacc      360
ggagagctga cggatctgct ctttagaacc acgggcaccg gaatcaagca tcatgtacac      420
agagttgaaa ccctgatcat ctga                                            444
```

<210> 2865
<211> 504
<212> DNA
<213> B.fragilis

<400> 2865
```
agaaccgcac aacatcggaa ctacagccat ctgaacagtt gcattgcgaa gagctctcaa      60
tacttcttct tctgtaatag tagaaggatc atcaaagtat ttttccatca acgcatcatc      120
aaattcagct acttttttcaa gcatttatc tctccattcg ttggcttcgt caacgagatt      180
agcaggaatt tcttctatgg tatagtcagc acccattgtt tcatcgtgcc agtagatagc      240
tttcattttg atcagatcaa ccaatccttt gaagttttct tctgcaccga taggaataac      300
aaccggacac ggatttgcac ccaaaacagc cttcatctgg cgaacaactt caaagaagtc      360
agcacccgaa cggtccattt tgttaacgta agcgatacgc ggtacgttat atttgtcagc      420
ctgacgccat acagtttccg actgaggttc tacaccacct acagcacagt aagcagcaac      480
agcaccatca aggatacgaa gtga                                            504
```

<210> 2866
<211> 420
<212> DNA
<213> B.fragilis

<400> 2866

```
attaaaaaac aatttaaaat gcctacaatt cagcaattag taagaaaagg acgcgaagtg    60
ctggtcgaga aaagtaaatc tccggccttg gattcttgtc ctcaaagacg tggcgtttgc   120
gtgagagtat atactactac tccgaaaaag ccgaactctg caatgcgtaa agtagctcgt   180
gtgcgtttga ctaaccagaa agaggtgaac tcttacattc cgggagaagg acacaacttg   240
caggagcact caatcgtact ggttcgcggt ggtcgtgtga aagaccttcc gggtgtacgt   300
taccacatcg ttcgcggtac tcttgataca gcaggtgtag ccggacgtac tcagagacgt   360
tctaaatacg gagctaagcg tccgaaaccg ggacaagcag caccggctaa gaagaaataa   420
```

<210> 2867
<211> 273
<212> DNA
<213> B.fragilis

<400> 2867

```
cacttggtaa aagagattat ctttgtccaa aagaaaatct taaggcctat gaaaaatatt    60
aattacagta taaaaaagca atttaaaata tcggacgaag gaatctgttt gttgcccatg   120
ctccttagag cgctctgtcg gcttactaaa aaaacagctg ttactactgg aagaaatcta   180
ttccaattac tcctcgtcca cagaagggga aatcatcaca caatctcacc ggacggtgaa   240
tgcaaaaagg atcccgattt ctttttcgta tga                                273
```

<210> 2868
<211> 2130
<212> DNA
<213> B.fragilis

<400> 2868

```
aggaaaaaga aaatggcaaa gaatgattta catttgactc gtaatatcgg tatcatggct    60
cacatcgatg ccggaaagac aacaacttct gaacgtatcc tgttctacac cggattgact   120
cacaaaatcg gagaggtaca cgatggtgct gcaacaatgg actggatgga gcaagagcag   180
gaacgtggta ttactatcac ttctgccgct acaactactc gttggaagta tgctggtgat   240
acttataaaa tcaacctgat tgacactccg ggacacgtgg actttactgc tgaggtagaa   300
cgttcacttc gtatccttga tggtgctgtt gctgcttact gtgctgtagg tggtgtagaa   360
cctcagtcgg aaactgtatg gcgtcaggct gacaaatata acgtaccgcg tatcgcttac   420
gttaacaaaa tggaccgttc gggtgctgac ttctttgaag ttgttcgcca gatgaaggct   480
gtttttgggtg caaatccgtg tccggttgtt attcctatcg gtgcagaaga aaacttcaaa   540
ggattggttg atctgatcaa aatgaaagct atctactggc acgatgaaac aatgggtgct   600
gactatacca tagaagaaat tcctgctaat ctcgttgacg aagccaacga atggagagat   660
aaaatgcttg aaaaagtagc tgaatttgat gatgcgttga tggaaaaata ctttgatgat   720
ccttctacta ttacagaaga agaagtattg agagctcttc gcaatgcaac tgttcagatg   780
gctgtagttc cgatgttgtg cggttcttca ttcaagaata agggcgtaca gactttgctt   840
gactatgttt gtgctttctt gccttctccg ttggatgctg aaaacgtagt tggtacaaac   900
cctgataccg gtgccgaaga agatcgtaaa ccgagcgaag acgataaaac ttcagctttg   960
gcatttaaga tcgctactga cccgtatgta ggacgtttga ctttcttccg tgtatactct  1020
ggtaagattg aagccggttc ttatatctac aactctcgtt caggtaagaa agaacgtgtt  1080
tctcgtctgt tccagatgca ctcaaacaaa cagaatccgg tagaagtgat tggtgccggt  1140
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acagctccga tcgttcttga gtcaatggac ttcccggaac cggtaatcgg tattgctgtg  1260
gaaccgaaaa ctcagaagga tatggacaaa ctgtctaacg gtttggctaa actggctgaa  1320
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cgtgaggttt ataagaaaca atctggtggt cgtggtaagt cgctgatat tattgtgaac  1560
atcggcccgg ttgatgaaga ctttactcaa ggtggtctgc agttcgttga tgaagtgaag  1620
ggtggtaaca ttcctaagga attcattcct tcagttcaga aaggtttcca gactgcaatg  1680
aagaatggtg tgctggctgg ctatccgctg gattcattga agtgacttt ggtcgatggt  1740
tcattccacc cgggtgactc tgaccagttg tctttcgaaa tctgtgctat ccaggcatat  1800
aagaatgctt gtgctaaggc aggtcctgta ttgatggagc ctatcatgaa gctggaagtc  1860
```

```
gttactccgg aagaaaacat gggtgacgtt atcggtgact tgaacaaacg ccgtggccag      1920
gttgaaggta tggagtcaag ccgttcagga gcccgtatcg taaaagcaat ggttccgttg      1980
gcagaaatgt tcggttacgt aaccgcgttg cgtactatca cttctggtcg tgccacttca      2040
tcaatggtat actctcatca cgctcaggtt tctagctcta ttgctaaagc ggtattggaa      2100
gaagtaaaag gacgtgctga tttactctaa                                        2130
```

<210> 2869
<211> 318
<212> DNA
<213> B.fragilis

<400> 2869

```
ttaaaagaac taatgagtca gaaaattaga attaaactga aatcttacga ccacaacttg        60
gttgacaaat cagctgagaa gatcgttaga acagtgaagg ctaccggtgc tattgttagc       120
ggaccgattc cccttccgac gcacaagcgt atctttacag taaaccgctc tactttcgtt       180
aacaagaaat caagagagca gtttgaactt tcttcattca agagactgat cgatatctat       240
agctcaacag ctaagactgt agatgctctg atgaagttag agttgccgag tggtgtagaa       300
gtagaaatta aagtgtag                                                      318
```

<210> 2870
<211> 264
<212> DNA
<213> B.fragilis

<400> 2870

```
tttatgggaa gtggaaatgc aaaattcctg gtaggacttg gaatcggttc tgccatcggt        60
gcgctggttt atcatttttc gcgcacggcg aaagctaaaa aactgaaaaa tgatgtgttc       120
aatgctcttc atgaaataga ggctgatgcc gaactggcag tagtcgaagc aaaagacaaa       180
gccgtgaagg ctggtgccaa agtagccgga aaagtagctg ataaagcgac tgaggtgaaa       240
gaaaaattga cacctaactc ttga                                               264
```

<210> 2871
<211> 1149
<212> DNA
<213> B.fragilis

<400> 2871

```
atcaattata tcatggaatt aaaaaagaaa gagaatatag gttggattga cctgttaagg        60
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gatgccaatc gggaatcgtt cttaacagga gtgttttttgg gaagcctgat gcgcccgtgt       180
gttcccattt ttgttatgat gaccggggta ttgctattac ccgtacaaac cgacatggca       240
gcgttctata agaaaaggat aggacgcctg atccctccaa tgatttttctg gtcactggtc       300
ttgcctgttt tgtatttcat atatctgaac tatatcaatc ccgatactca aaatccactg       360
atctcgatgc cagatcacag tcttgaagct ttatggttca aactatatac atttatattt       420
aatttcaatt ttgacacagt cccgttgtgg tatctttata tgttgattgg gttatatttg       480
ataatgccta ttatcagcgg ttggttggaa aaagtttcaa agaaggaact aaaaattattc       540
ttaggcattt ggggaatcag cctgattgct ccatatgtaa aaatgttcgc tccagcacta       600
ggctatcagg gcaattacgg gaatatgggt ctatggggag tatgtgactg gaatgactat       660
ggtacctttt attatttctc cggtttttatc ggatatcttc tgctagctta ttatctcaca       720
aaatatccac tgaaatggag ttggaagaaa ctattgagta ttaccatccc aatgtttctg       780
acaggatacc tgatcacatc ttatgggtac gtcatcacac aaaattactt cccgggaaat       840
tatgcttatc tggaaattgt atggtacttt gcaggtatca acgtatttat gatgaccttc       900
ccggtttttg taatcgtaca gaagataaag gtaccttcaa accacaggtt atcacacatg       960
gcatcactcg cattcggcat ttatctgagc cattatgtat ttgtattcat tgcttacgat      1020
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atccggtaa                                                              1149
```

<210> 2872

<400> 2872

```
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agtggtgaag tattaaagcc tgaaaccatc aactatcgta catacaaacc tgagcgtgac  180
ggtttgttct gcgagcgtat cttcggcccg atcaaagact acgaatgcca ttgcggtaaa  240
tataaacgca tccgttataa aggtattgtc tgtgaccgtt gtggtgtaga agttactgaa  300
aagaaagtac gtcgcgaacg tatgggacat atccagcttg tcgtgcctgt agctcacatc  360
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gacggtatcg ccgaatttga tctgttgtca gaagaagaat acttggatat tcttgatact  540
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gatgtcaata caggcattgt actttctacc cataacgttc cttacggttc tacacttat 3060
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gctgttatca taaccgaagc taccggtaag attgagtttg agggtgtcat tgaaaatgtt 3180
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```
aaagataaga ctaaagtacc ttcggctcac atcctgaccg aagacggtga tcttatccgt    3300
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ggtgaggtaa tcgttaagat tccgcgtgct gtgggtaagg ctggtgatat taccggtggt    3420
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ccggccggta caggtcttcg cgagtttgac aagatcattg taggttctaa agaagaatac    4260
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```

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<210> 2873
<211> 333
<212> DNA
<213> B.fragilis

<400> 2873
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tcggagtttg tactcgactt tgtgcgtgta ttgcccgggt tgccaaaagc aggggtacag    180
tcgcgtgtga ttcttgctcc cgaacatgcc aaacgtttgc aaagggcgct tgaagaaaat    240
atagctaaat atgaacgtgc attcggtcct atccgattgc aggaagacgg agtggatact    300
cctcctatat tagatataaa aggagaagcc tga    333
```

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<210> 2874
<211> 378
<212> DNA
<213> B.fragilis

<400> 2874
tatttaaaaa ttagtgaaat gccaggatta ttaggaaaaa aaatcggaat gacatccgtt    60
ttcagtgccg atggtaagaa tgtaccatgc actgttatcg aagcaggtcc ttgtgttgtt    120
actcaggtaa agaccgtaga gaaagatggc tatgcagccg ttcagttggg tttccaggac    180
aaaaaggaaa aacatacaac taaaccgttg atgggtcact tcaaaaaggc tggagtaaca    240
ccgaagagac acttggccga gttcaaggaa tttgaaaacg agttaaatct gggtgatact    300
gttacagtag aactgttcga cggcgcagac tatgtagacg ttgttggact tctaaaggta    360
aaggctttca gggtgtag    378
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```
<210> 2875
<211> 195
<212> DNA
<213> B.fragilis

<400> 2875
ctccatacct tcaacctggc cacggcgttt gttcaagtca ccgataacgt cacccatgtt    60
ttcttccgga gtaacgactt ccagcttcat gataggctcc atcaatacag gacctgcctt    120
agcacaagca ttcttatatg cctggatagc acagatttcg aaagacaact ggtcagagtc    180
acccgggtgg aatga    195
```

```
<210> 2876
<211> 831
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```
<212> DNA
<213> B.fragilis

<400> 2876
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cgtaaaaagt tcgctatcac aattggtgat gaactgcctg caggtatcat tcagatggcg     120
aaagtatata ttgctaaaaa acgtaagatt ggtgtaggtg ataagatggc cggacgtcac     180
ggtaataaag gtattgtgtc acgtgttgtt cgtcaagaag acatgccgtt ccttgaagat     240
ggaactccgg tagacattgt attgaacccg ttgggtgtgc cttctcgtat gaatatcggt     300
cagatttttg aggctgttct cggacgtgcc ggaaagaatt tgggtgtgaa gttcgctacg     360
ccgatttttg acggtgcaac tttggatgac ttgaacgagt ggacagacaa agctggtcta     420
ccacgctatt gcaaaactta tctttgtgat ggtggtacag gcgaacgctt tgaccaacca     480
gcaaccgtag gtgttaccta tatgttgaaa ctcggtcaca tggttgaaga caagatgcac     540
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catattctcc aggagattct gacaatcaag tcggacgacg ttgttggacg ttctaaggct     720
tacgaagcca ttgtaaaggg cgaacccatg ccacagccgg gtattccgga atctctgaac     780
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<210> 2877
<211> 429
<212> DNA
<213> B.fragilis

<400> 2877
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accaccagat tgtttcttat aaacctcacg caagttaact gtcttagtga tagcctcttt     180
gtagttaacc tgaggtttac cctggttaca ttctactttg aattcacgtt tcagacggtc     240
gataatgata tccaagtgaa gctcacccat accggaaata actgtctgac ctgtctgttc     300
gtcagttttc actgtgaatg tcgggtcttc ttcagccagt ttagccaaac cgttagacag     360
tttgtccata tccttctgag ttttcggttc cacagcaata ccgattaccg gttccgggaa     420
gtccattga                                                               429

<210> 2878
<211> 288
<212> DNA
<213> B.fragilis

<400> 2878
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aagagatact gcgggttcag tgcaatggcc cgtgcaatgg ctacacgctt ctgcatacct     120
ccactgattt cgccgggaaa tttatcttta gcttccgtga ggttgacacg gtcgaggcag     180
aacatagccc gtttggtttg ttcgcgcaag gtgtcggtgc cgaacatgtt gagcggaaac     240
ataacattat ccaaaacaga catggagtcg aacaacgccg cgctttga                  288

<210> 2879
<211> 399
<212> DNA
<213> B.fragilis

<400> 2879
caaagattgt taaaatgctt aaatttgttt ggtatggcaa agataaaaac agaaaaacag      60
tacaaggcag cttgttcaag aattgaagaa ctgcttaagg tggttagtaa tgatactcca     120
accgatgata aaaacttcct cgaattggac ttgatttccg atttggtcgc agactatgaa     180
gaggagcatt tccctataga agctccttct ttggtggatg ttattaagct tcgtatgtat     240
gaaatgggac ttacccaaac aaaactgtca gaattgttaa atgtaagtcc ttcccggatt     300
agcgaatacc tttcaggaaa gtgtgaacca accttgaaag ttgctcgtga ataagccgg      360
aagctaaata ttgatgctaa tatagtgttg ggggtataa                            399
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<210> 2880
<211> 1488
<212> DNA
<213> B.fragilis

<400> 2880
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acgcatagcc ctatgtcatt tattgctgat aagattgtaa tggacggatt gacttatgat    60
gatgtattgt tgatccccgc ttattctgaa gttttaccgc gcactgtcga tctctcgaca   120
aagtttttcaa gaaacattga gttaaagatt ccgtttgtaa ctgctgccat ggatacggtt   180
accgaagcta agatggccat tgccattgcg cgtgagggag gaatcggtgt gattcataag   240
aatatgtcca ttaaagaaca ggctaagcaa gtggctaccg tgaaacgtgc cgagaacggt   300
atgatttatg atcctgtcac tattaagcaa ggatctaccg tacgcgatgc cctcgcattg   360
atggccgaat ataaaatcgg tggtattccg gtagtggatg acaatagata tttagtcggt   420
attgtaacaa atcgtgacct tcgtttcgag cgtaacatgg ataagcgtat cgacgaggtg   480
atgacaaaag aaaatctggt gactaccaat cagtcaaccg acctggaagc ggcttcacag   540
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ggactggtga cttacaaaga tattacaaag gccaaggata aacccatggc ttgcaaagac   660
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atggaaaatg gttcaaaaga ccgttatttc cagagtggcg agatggacgt aaagaaactg  1260
gttcctgaag gaattgccgc ccgcgtgccc tataaaggaa ctttgtatga agtgatttac  1320
caattgaccg gtggtctgcg tgccggtatg ggatattgtg gtgctcccga catcgagaaa  1380
ctgcatgatg ccaagtttac ccgcatcacc aatgccgggg ttatggagag ccatccgcac  1440
gatgtgacga ttacgagtga gtcgcctaat tacagccgtc cggagtaa            1488
```

<210> 2881
<211> 2367
<212> DNA
<213> B.fragilis

<400> 2881
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aaccgggctt taataaaaaa agatatggat agacgggact attatgtgga gtattatgag    60
gtgctggata gggtgctgtc tgactacgtg aatcagttgc gggaaaagag ggaacattgg   120
ctgaaaatgg ggaggcatga tgtgggcgtg cctttgatca atttactatt ctggcagttc   180
acatggcata gagaggagta cgaccggtta cgtaaagaag gaaagagctg tggggaagca   240
ttgggtagcg taaaggagat actggcagat aagcaggtgg aagaatggga gcgacaggaa   300
gaggaataca aaatctacga ccatgaatgg tatgaagcac tggcacctta tggcgggcag   360
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gactttgtaa cggccattac tcttgaattt accaaaacag.ctccattggt taatccattc   540
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gccaccatag ggcgtgatta tggagtaccg accttgtgta ttcagcaggg atggccgtca   720
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ctggcagagg tatttgcccg cacacgggta ggggtggcac actattcttc ttctttgatg  1140
gagggagtgg cacacggtgc tgtcccgttg gtgtacgatc cgactgaggg atcgcggtat  1200
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caacctctgt ggcttcaggc aacaggagaa gaaactctcc ggaatatggt agggtttatt    1380
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acacgcgaac ggcccgtcgg ggtgtcgggg gtattacgct gtaagaattg tgaggatttt    1500
ttggagatgt gcattgattc gtgtatcgat ggattggatg agttgatagc tgtctatcat    1560
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<210> 2882
<211> 183
<212> DNA
<213> B.fragilis

<400> 2882
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gttcggctga gccttaggac ccgactaacc ctgatccgat tagcgttgat caggaaacct    180
tag                                                                   183
```

<210> 2883
<211> 207
<212> DNA
<213> B.fragilis

<400> 2883
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acttatgcta caaaactaca ggttccgaaa atgaaaagca aatttgaaga tggacaatat     60
ctcaatatat atcacataaa atcagcaact tacatcaact ccttttttatt tgatggacaa    120
actggtttga ctacccgtcc gacagaagcc atatcaggaa ctccaagttc aattttaagt    180
ctctgtttac gtttactcaa agcttga                                         207
```

<210> 2884
<211> 264
<212> DNA
<213> B.fragilis

<400> 2884
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ttggcggatc gtgaaatgaa tgcacttcgt ggaggacata attgtggatg tgcatgttcg    120
tctacttcta aggcaacgaa tcattcatcg aatgaagatc gtgatttaca ttctccagaa    180
ggtaatgtca tttgcacttg ggtaggagga gcagggtctg atatctcagt atacggtgga    240
agcaaagctc ccggtatgcc ttaa                                            264
```

<210> 2885
<211> 270
<212> DNA
<213> B.fragilis

<400> 2885

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aaaggagcag aatttaaagc tactaactat agtgctaatg tagctgatga taagtattct      180
cctgaaggta atattatttg taactgggta gggggcagtg gttctgatat ggccgtttat      240
ggcggaagta aagttcctgg catgccttag                                        270
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<210> 2886
<211> 780
<212> DNA
<213> B.fragilis

<400> 2886

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ccgcaaagga cagactcctt tggtagaggt cgatggaaac tttttgtaca aagaagacct      60
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tacgtccgta gctgggtaga agatgttttg ttgttcaatc aggcgcaaag caatattccc      180
gataacggag aaatcgataa gttggtcgag aattaccgga aagcattgat catgcatact      240
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tttatcaaag ttcctctgac cgctccccaa ctgggcaacg tgcgtaagtg gtacaaaacg      420
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ttttactatt ttctgaatat cagtgatttc cgtgtggcgg cgaacagga accttatgaa       660
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caagtgaaag acgatctgta cgagcgtgca gtaaaaagaa agaagattat aaattattaa      780
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<210> 2887
<211> 309
<212> DNA
<213> B.fragilis

<400> 2887

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ctgggaatat tgcccgagaa agaatttct cccgaagata ttcgcgggaa gtttatcgaa        180
ggtaccacac acctgaagcg tcgtaaagag agcggacgta aacccgccca tttgggagta      240
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```

<210> 2888
<211> 588
<212> DNA
<213> B.fragilis

<400> 2888

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aaaagagaag ctttgggaaa gtttgataaa tacaaaattg atttgaaagg aatgcaagca      60
gactcatgca aatatgagtt tctacttgac aatcttttt tcgctcatat tgatggccct        120
gaagttcaga aaggtaaagt caatgtagag ttgaccgtta aaaagacctc tcgtgctttt      180
gagttgagtt tccggactga aggtatcgta tgggtaccat gtgaccgttg tctggatgaa      240
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tgtaataaag ctgtgaccag taagctgaat aaacacctga gaacaagtgg tgatgacgat      480
gctgaagaat cttttggcgc tggtgaggat atcgttgtgg aagatgaagc ggaggaacag      540
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```

<210> 2889

<211> 1296
<212> DNA
<213> B.fragilis

<400> 2889
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agatgcagca gtatcttcgg atatcagttc agcgagatag tccgttcgct gatgagcgtt   180
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cctgccaagt ggatcatgac tgcaaggcaa tacgtgctga atatctacac agagaaccga  1260
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```

<210> 2890
<211> 192
<212> DNA
<213> B.fragilis

<400> 2890
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aagaaaatgg cacatcctaa gagaagacaa tcaaaaacaa gaactgcaaa gagaagaact    60
catgataaag cagtagctcc tacattggct atttgcccga actgcggtga atggcatgtt   120
taccatacag tatgcggcgc ttgcggatac tatagaggta agctggcaat tgaaaaagaa   180
gctgctgtat aa                                                      192
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<210> 2891
<211> 2187
<212> DNA
<213> B.fragilis

<400> 2891
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gtgctgatgc ctaccggcgg tggaaaatct ctgtgctatc agttgccttc tttattaatg   180
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ggtgcgattg atcaggtgcg gtctgacatt cttgccggaa aaacaaaatt gctatacgtt   360
gctcccgaat cgttgacgaa ggaagaaaac gtagaatttc tgcggtcagt aaagatctcg   420
ttctatgctg tcgacgaagc gcattgtatt ccgaatgggg acacgacttc cgcccggaa    480
tatcgcagga tacgtccgat tattaatgaa ataggaaaag cgcctcttat tgcgttgacc   540
gcaacggcca cgccgaaggt gcagcacgat attcagaaga acttgggaat ggtggatgca   600
cacgtcttca agtcttcgtt caaccgtccg aatctgtatt acgaggtacg tcctaaaact   660
cagaatgtag ataaggacat cataaagttc atcaagaaca atccggaaaa gtcgggcatc   720
atttattgcc tgagccggaa gaaggtagaa gagcttgctg agatacttca gccaacggg    780
attaacgccc gtgcttacca tgcaggtatg gattcggcaa cgcgaacgca gaatcaggat   840
```

```
gatttcctga tggaaaagat cgacgtaatt gtagctacta tcgcatttgg aatggggatt    900
gataaacccg atgtgcgata cgtcatccac tatgatatac caaagagcct ggaagggtat    960
taccaggaaa cgggccgcgc cggcagagac ggcggagaag gccagtgcat tacctttat    1020
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gcaatcgttt attcgggtac taagttgaat attgattact tcctggatga gattatggac   2040
gaagaccaca tgctcgacat ctatgattat ttcaaggagt cgacaacaga taagattgac   2100
gatgcgctcg acgaactcgg tgacgaattt accgaagaag aagttcgtct ggttcgtatc   2160
aagtttatct ccgaaatggc taattaa                                        2187
```

<210> 2892
<211> 1197
<212> DNA
<213> B.fragilis

<400> 2892

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aatgaagatt tcttttctat tgccgtatcg gatgtgaaag ataccattaa ggtgtatatc    180
gaagatttgg tagactcttt ggttattctc cccttggata atgataaaaa ggcactgtgt    240
gctccattaa cagtgtatat aaccgaacaa catattggcc tgaccccctc tgaaagagga    300
ggtacctata agctgttttc ccgagacggg agcttcttat gtaatgtagg aggctttgga    360
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gatttttgagg gaaatattaa ggggaaaata cattcttatc catacacgct aaagcccgat     660
tttgggaatg atgttcagac catgtttaat acagaagctt tttatacaag tgtttctgca     720
ggatttgagc agttggaagg tatgaatgat accttgtatc attattatcc ggaaaccgac     780
gtattgacac cggtctttta tgccgatttt ggtaaagaag ggcatcaaca tcgttatctg     840
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tttacaacct tagattatac agtaatcaaa gtcgataaga aaacccacga agcgtcttat     960
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agattcggat acttttatct ctggatggag cctattgaat tgaaagagca gctatcgcag     1080
atattgaaac tttccgaaat ggatactgcg atgaggggta aagttgaaaa gctttataat    1140
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```

<210> 2893
<211> 1275
<212> DNA
<213> B.fragilis

<400> 2893

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```

```
actgaggaaa cctttaaaga aattgatctt gctaacaacc tggaagattg cggcaagcct    180
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atattagtcg gtgatataaa gcagctaaag cggacggagc aatatatctt tatttattca    300
cgtcgacaga atcacattat gatgtttgat aagtccggga agtttatccg taggatagga    360
cgtgtagggc aaggtcccgg agagatgtcc aatatacagt cttttacgac caatgataat    420
agagttttca tttatccttt gagccgtagt agcagtttta tgatttatga tacacaaaac    480
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aataataata tgaaagatgt gggtgaaaac tgttttttgtt cgtcatcac accggataat   1140
ttggatcagg taaggcgcaa cgtcgctgaa gctaaggtta agttccctga gaagcaggcc   1200
gaactgctga agcttcttga tgaaatggga gaggatgata atccgattat tgctttctat   1260
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```

<210> 2894
<211> 939
<212> DNA
<213> B.fragilis

<400> 2894

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aatgtgttgg taggcgaacg tatctcgatt gctacgttta aggcgcagac tactcgtcac    180
cggattatgg gtatctataa tacggatgat atgcagattg ttttttcgga tactccgggg    240
gtattgaaac ctaattataa gttacaggaa tctatgctga acttctctac ttcagcattg    300
gctgatgcag atgtcttgct ttatgtgacg gacgtgattg aaactcctga taagaataac    360
gaatttattc agaaagtacg tcagcagtcg gcacctattt tgttgttgat taataaaata    420
gacctgactg atcaggaaaa gcttgtgaaa ctggtagaag agtggaaaga gttgcttccg    480
caagcagaaa ttattccgat ttcggcagct acgaagttta atgtagacta tgtgatgaag    540
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aaggagattc cctattcggt agaagtagta gtggaggaat ttaaggaaga tgcaaagaag    720
atacatattc atgctgtgat ttatgtagaa cgtgattctc agaaaggcat tattattgga    780
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tttggaaaaa ctgttttcct ggaaacgtat gtgaaagtag acaaagattg gcgcagttca    900
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```

<210> 2895
<211> 1272
<212> DNA
<213> B.fragilis

<400> 2895

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attcggcaaa tgcttgaatt tttcaggcag acttcttctg tgagattaac tattgttgaa    180
ctgaactcgg aggtaaaaga ggtgacggaa gagtgtgata attcgggaaa agtgtgctat    240
ttgaaaattc ctgctcaaaa gagtgaggga agaaaaggag atgttgcgca ttgttatcgg    300
aatatagctt atttgcttgc gctgcatttc ttgaaggatg agcaaaacgt gttgcatctg    360
aattatttgc atcatgcccc tttagcagac tggctgaaga agataggagt ggaattctat    420
ttacttgtga ctattcatta tttggattgg tgtttcatgt taaagggaaa tactcgattg    480
tttcgttcga ttattcataa ggaagagcag tcgaatgagt ggggcaagaa aatacggaat    540
```

```
agttatgagc gagacaaacg attgtttcag cattcggata aagtgatatg tttgagccaa    600
tatactcaga atttgctgcg tgaagactat ggagtggaaa aagaaaaact ggttgtggtt    660
tataacggct taaaggatga agcgattaaa ctgagtaagg aggagcgttt ggaaaagaga    720
tctgcattag gatttaggga gacggataag attattcttt ttgtagggcg cttagatcgg    780
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cagatagctg atgttggagt tttgccttct tttcatgagc aatgtagcta tgtagccatt   1020
gaaatgctaa tgcatggact gcctttaata ggaacaggct ctaccggttt aaaagaaatg   1080
gtagaaggga tgcattgttt accattgaaa gaagaagatg atagtgtaga tctacctatt   1140
gatttattgg tgcagtggtt aatcgaagat caagagcatc tacggtcgga gaagtatagg   1200
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ttgaatttgt aa                                                       1272
```

<210> 2896
<211> 1488
<212> DNA
<213> B.fragilis

<400> 2896

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tcgtttcggc ataaggaata tttgcctctt catccgatct tgaaaaggat ttatacggtt    120
gtggaagaaa agaaaaatat tgaggaagat gaagaactga aatgttatcc taaagagcag    180
atacttcact atttacaaaa atataaattt ctgaaggaaa acgaatttat tggtgaaaaa    240
gtgaagacgg agtttggaga gatcactgaa actatggtcc gaagagaagt tgagaacctg    300
acagttctta ctttcgaggt tacagaacgt tgtaatcttc gttgccgcta ttgtgctttt    360
ggtgatttat attatggata cgatgagcgg aaaggtgaga atttagattt tccaaaggca    420
aaacaaatac ttgattttt atttggcatt tgggagaaaa tacctcactt atcagttgct    480
cgcactctta ctgttggttt ttatggtggt gaaccactta tgaatatgga tctgataaag    540
cagattgttt cttatattga cgaacataaa cctgaaggta tgaaatttgc atataatatg    600
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aaaagttcgt ttgcacaagt tttcgagcaa ataaagaatt acaatttttg ttatcctgag    780
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tttaaaaacc gagaaatgtt tgccggatat ttagcgatga atgtagatta tttggagcat   1440
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```

<210> 2897
<211> 1242
<212> DNA
<213> B.fragilis

<400> 2897

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gcctttcgtt ctgttgattt gcgtataata gagaaagcag aagggacagt gatgtctttg    180
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aaaacctatc catttgggat ctttgcatca gataattata tcttgctgaa tccagacgct    300
atatctccta ttaagttgtt tacgcgtaaa ggtcaatacg tggcggatat tggtggtata    360
ggacagggcc ctggagagta caaaacgata catttctgta tgatagatga aaaacaaaaa    420
```

```
cgtatttact taggtccggg aagagcaaat aaaatactta cttatgacct gaaggggaat    480
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```

<210> 2898
<211> 237
<212> DNA
<213> B.fragilis

<400> 2898

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agaatagaac agacctattc tttttccgga aaagtatata tctatccggt ggatcattta     60
ataattttat cgcaaatacc ttgtcggtta ttacagcata ttgtttcttt aataagaaac    120
ccgccattga tgtggacttt gtcaatgacg ggcagtttag attattctaa gattgtatcg    180
aatcacgtta atattattat ttcattcaat caccttgaac ctcatttcta tcaataa       237
```

<210> 2899
<211> 267
<212> DNA
<213> B.fragilis

<400> 2899

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tcactgatgc aacgaattat tgtattatct tcgtacctta aattaagtat aattcagttg     60
acaatgcgaa aaacgggcct tctggtaatc tctctcctat tctgtgcgtc gtgtgccgac    120
aagcatgacc gcaaaggaca gactcctttg gtagaggtcg atggaaactt tttgtacaaa    180
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ccgagcacta cgtccgtagc tgggtag                                        267
```

<210> 2900
<211> 645
<212> DNA
<213> B.fragilis

<400> 2900

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caacgccagc aggaggatac gtctatggtt ggttcactat taattgggaa taagcatttc     60
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aaaatgggga ttgccattgc tcttttccgc tatggtcgcc tttccggtga gttagcttat    180
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gatgagcctg ttgatgattt gcttgatttt ttatttgacc tatatcctac agggtttttat    600
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```

<210> 2901
<211> 252
<212> DNA

<213> B.fragilis

<400> 2901

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gtgttgcaaa aagaaaacaa gcaaaactct aatatgacat ggcaaaaata caaattaaat    120
ctgagaaact cacacctttt ggaggaattt tttcaatcat ggagaaattt gactccatgc    180
tttcacccgt tatcgactca acactgggtc agagatgcag cagtatcttc ggatatcagt    240
tcagcgagat ag                                                         252
```

<210> 2902
<211> 1716
<212> DNA
<213> B.fragilis

<400> 2902

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ctgcatttcg aatttagcgg tctggttctg cgggttctgc atcagaccgt ggctgttgcg    180
cgtatctttg tcctgagaca aagcagaagc agcctgatca aggtaaact  tatcgctacg    240
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cagttcaata tgccggtttt tatccatata ggcttcaggg gattccgctt tcaacgggat   1440
catatccagc acatcggcca cccgcaccca tttatcataa aaatactcat acttcactgc   1500
gttttgcaaa ctatactttt ccaaatgctc aacggcatcc tgagtctccg ttttgtacca   1560
cttacgcacg ttgcccagtt ggggagcggt cagaggaact ttgataaaca gacctttcat   1620
caatggacgg tccagcttaa acagttcttt gttcttttcg taatagtctg ctatttcttg   1680
ttcggggatc tcgcccgaca atttctggct gattag                             1716
```

<210> 2903
<211> 228
<212> DNA
<213> B.fragilis

<400> 2903

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tttaataata aaaggattaa agaaacagag agtttacaaa agcgtctttg cgccggaagt     60
aaaaaccttg taattgaaat cgagaaacta atcgatcatc tttccgcagc aaagaaacgc    120
ataaaaaccg gaattgcaat aacttttct  ctttttttgt atacgaaacc tatgaatttt    180
agcgatttgg aacgttttcg gggtgaaaat agaaaatatg gattgtaa                 228
```

<210> 2904
<211> 1377
<212> DNA

<213> B.fragilis

<400> 2904

```
attagtataa atgaaagtaa gtcatctatt tgttgggata tttgggcttt atgcacaaat    60
ctgccgcagg tcggagtgaa gttggagaag gaggagaaag ctgttcatgc aaattctatc   120
agagaaatat tttatacatt tttaaacaga tttataatga aaaacctata tttgatttta   180
gtgcttagtg cgttggtggc ctgtaccggt agttctcaaa aagagaagcc ggcatgtgta   240
aatactcctg tcgagccgtt caccggattg cctgtttttg atttgcaggg gcaatacccc   300
gagaaagaaa tcattcttca ggatatcgca gatgtaagat atgtcgtgtt ggaaaccggc   360
gatagttcat tggtcggtac ccgtaccatc cttatgacgg acagcttact tgttaccgta   420
aacaagaaaa gtgatgttat cttttttgat aagtcaggga aatatcttca ttcttttaat   480
catacaggca tgagcggaga agaatatggg gatgttgtca gcggttattg tatagatgaa   540
aaagcccggg agatattcat ctatgacggg ttacaaagca gaattcaggt gtatggttat   600
ggcggcgcat acaggcgcac gcttaaactg ccgcaaaacc gcatgtttgc ttcttcgata   660
tttgagtatg atgaaaattt cctgtttggc gaagattatc gccttgtcga ctatcagatt   720
gggaagtatc ctgttaataa aacgccttat tacaaaattt ccaagaaaga cgggaaatta   780
acgtcggttc ccatcacggt caaggggaga ataagggatg gactttatac ggtaggagac   840
ggtgagtctg gcggctatgt aagtttatcc atgtctcccg tagcccgttt gggttcggat   900
attttgattg ccgattattc tttggatacg gcgtatgtat atcgtgatga ccatttgatt   960
ccattgactg tccgccggaa ccatacaagc gaaaacaata ttccgatttt agcgacggtt  1020
gatgtgatga ccggccgtta tttgctttgg tacacgatag taaaggatat agatgtgaag  1080
aacaaccgtg tttctgatcc ggtatcttat ttgtatgaca ggttcactaa tgaatattgc  1140
cgggtcgatc tggtaaacag ggatggtgtg tccgctacca atgttccggc attccagatg  1200
cgattgtccg ccaattatca tgtagtgcct gaaaactatg ccatacaatg ttatccggcc  1260
gagaagctta tcgaacttaa cgggcaagga aagttgaaag gagagttgaa agagattgct  1320
tcaaaattga atgacgaaga taatccggtg ttgcttatcg ctaaatttaa ggaataa     1377
```

<210> 2905
<211> 795
<212> DNA
<213> B.fragilis

<400> 2905

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ataaataaaa agactatgaa gtactccgaa caaataacaa ttggcatccc tgtgcggata    60
gatagtccgg caagaatgag aaatcttcag gtcttacttc gtcatttgtc tttgtcggga   120
ataaaaatac atgtatggga agccggtgat gtaagaagtg aattgtccgg ctttgccagt   180
aataaagaca cctatactta cgaaagagat gaaagtttgg tttatcataa aacattgtat   240
gtcaatcgat tgctaaaggc cgcttctaca cctgttgttg caatctggga tgctgatata   300
ctactccctt tatcgcaaat agaggcttct gtacttgcga ttattgagca aggctatttg   360
ttaagcattc cgtatgacgg agtcgtgaaa atgctttcgg aggctcagag tgaggcgttt   420
gaatattccg ggcaaggatg cgactatctg acaatgttcg ccgctacata cgcccgtttg   480
atgagacgcc cttcgtgtgg tggagtattt gttgttgatc gggagaagta tttgcattgg   540
ggaggagata acgaacgttt tgtcagttgg ggaccggaag atgccgaacg tatccggcga   600
atagagatat gggatatcc tgtgcattgg gtaaaagagg gccctttata tcatttatgg   660
catcctcgag gagaaaactc cgggtacgct acagaggagt tggcgtttca aaaccggatg   720
gagtttataa aagtgtgtag catggagcgt aacgaattgc gtgaatatat aaaatcctgg   780
aaaaacaatg ggtaa                                                    795
```

<210> 2906
<211> 612
<212> DNA
<213> B.fragilis

<400> 2906

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aatcctggaa aaacaatggg taaagtggac gaagcattat taaaacgaat agccgatcac    60
cagatgttgc atgggagttt ccgcagagat ctgggagtac tgaatggcaa aatgggaatt   120
gtattgttct tttccatta tgcccgttat acggggcgtg tactttatga ggactttgcc   180
ggggaaatgc tggaggaagt aattcaggaa cttcacagcg atttgccgat tcgttttttcc   240
gatggtttat gtgggattgg ctggggggtt gagtacctga ttcagaatgc ttttatagca   300
```

```
ggggattcag atgagatatt ggaagattta gatcaaaaaa taatggaatg ggatcctcgg    360
agagctacag atctttcatt tgagtcgggg ttagagggag tcgcttgtta tgcctcttcc    420
cgtttaaaat ctactgtccg gaatcggatg cctttgatc aagtctacct aagcgaattg     480
gaaatggctg ttcagcaaaa gggactgagg atgaggttag aattggacga tgtatttgtg    540
agagtgattg atatagggaa tatagaagaa gaagtatcct ggaaatatgg attaaagatg    600
atagctttat ga                                                        612
```

<210> 2907
<211> 1317
<212> DNA
<213> B.fragilis

<400> 2907

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actatgggaa atttagttgc aatcgtagga cgacccaatg tgggcaagtc taccttattt     60
aatcgtttga cgaagacccg tcaggcaatt gtgaacgatg aagcgggtac tacccgtgat    120
aggcagtatg gtaaatccga atggttagga cgggagtttt ctgttgttga taccggtgga    180
tgggtggtga actctgacga tatattcgaa gaggaaatac gcaagcaggt attgatggca    240
gtggacgagg cggacgtaat tctgtttgta gtggatgtga caaacggagt gacagatttg    300
gatatgcagg tagccgctat attgcgtcgg gccaagagtc cggttattat ggtagccaat    360
aagactgata accatgagct acgatacaat gctcctgagt tttatcggtt aggactgggc    420
gatccgtatt gtatttctgc gattagtggt agtggtacgg tgatctgat ggatttgatt     480
gttagtaaat tcaagaaaga atctgatgag attctggatg aagatatccc acgttttgca    540
gtggtaggac gtcccaatgc cggaaagtca tctatcgtga atgcttttat cggtgaagaa    600
cgtaacattg ttacggaaat agccggaaca acccgtgact caatttatac tcgttacaat    660
aagttcggtt tcgatttcta cttggtagat acagccggta ttcgtaaaaa gaataaagtg    720
aacgaggatc tggagtacta ctctgtagtt cgttccattc gtgctatcga gggagccgat    780
gtatgtattt tgatggtgga tgcgacccgt ggtatagaaa gtcaagactt gaatatcttt    840
tcgttgattc agaaaaactc gaaaggcttg gtggtagtcg tcaacaaatg ggatcttgta    900
gaaaacaaga ctgataaagt catgaagact ttcgaagaag ccattcgttc acgttttgct    960
cctttgttg attttcctat agtatttgcg tcggcattga caaagcagag aatcctcaaa    1020
gtgcttgaag aagcacgcaa ggtttatgag aatcgaatga ttaaaatccc tacagcccgc    1080
ttgaatgaag agatgcttcc gttgatcgag gcttatccgc ctcctgcaac taagggaaaa    1140
tacatcaaaa ttaaatatgt cactcagttg cctaatacgc aagtaccttc gtttgtcttt    1200
ttcgccaatc tgccgcagta tgtgaaagag ccttatagaa ggttcctgga aaacaagatg    1260
cgtgaaaagt gggatttgag tggaactccc attaatattt atatcagaca gaagtaa      1317
```

<210> 2908
<211> 1560
<212> DNA
<213> B.fragilis

<400> 2908

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aatgatatga agaagattct ggttggaaca ctgacctgtt tgtttggggc gattgccggc    60
catgcccagc aagatccggt attgatgcgg attaatgggc aggatattac ccgttcggag    120
tttgagcgtt tctgccaccg gaataaacct tcgggaatag ccgggaagga gactctgaaa    180
cgctgtgccg atcttttgt cgatatgaag ttgaagttgt ctgcagcgca aaaggccgga    240
ttggatactg tttctgattt tcgtacagag atggagaatt atcatcgagc cttatccagg    300
tcctatctta ccgattctgc taccgatgag gcctacgcaa agaaactcta cgatcagatg    360
aaaacccgct ctgctgccgg cgaagttaag gttatgcgta ttttccgtta tcttccgcag    420
actgccttac cccatcattt gcgggaggca cagatcttga tggattcact ctatcatgtc    480
ttggagactc atcccgatat tgactttagg acactggtaa acaagtactc ggatgataag    540
aaagagtttt ggatgggttg gttgcagact tcgcaggagt ttgaagaagt agccttctct    600
ttaaaagatg gagagtattc aaagccgttt tttacaccca agggtataca gattatcaag    660
gtgacaggca ggcgggaaat tcctccattc gaacagatac gcggagaatt gattcataaa    720
ctctcccgtc gcccgggtac ggataaagaa attgagttat gggtgaacaa gttgaagagt    780
acctgtcaat atactccgga caaggccggg atggaagagt gcttgcctc gggcaggact      840
tcccgcactc tttttacgct ggacggaaaa agctttaccg ggaaagactt tgaacggttt    900
gccgatgccc atcccatggg gataaaacga caattgaatg cctttgttgt gaaatcaatt    960
cttgattacg aaaacaatcg ccttgaacag aaatatcctg atttccgact ggccttgcaa    1020
```

```
cagcgccgtg acgatctgct tttagccgct ataacccgtc gcgaatcgcg tcaggtcagt    1080
ctgtccgatt ctgttgcgct gaaagccttt tttaaggaac accggaccga ttacaattgg    1140
gattcgcccc gttacagggg tgccgtattg catggaaccc ataaaaagac tctgaaaagt    1200
gcacgtaaat tcttgaagaa acttcccgag gaagagtgga aagacgccat ccgcctgacg    1260
tttaatactc ctgcttcgcc agccactatc cggatagaac aaggaacttt tgccgaaggt    1320
gacaatgttt ttgttgataa gttagtgttt aaaaaaggag atttcgaacc cttaaagtcc    1380
tatccttta ctgttgttct aggtgagaaa aagaaagggc cggagtccta ccatgagatc    1440
attccccaat tgatccggga ttatcagaat catctggatg cactttggac agaacgtctc    1500
agagcttctg ctaaggttga aattaaccaa gaggttttaa aaacggttaa taatcactga    1560
```

<210> 2909
<211> 1884
<212> DNA
<213> B.fragilis

<400> 2909

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agacagatga aatcatctta tatctgctgc gtattgttat ttgttttgtt tttggtaagt     60
tgtaccgatg ggcgttctga ggggcaagta gcccgtttgt tacgtcaggc cgaaatgtgt    120
atggaggaat gtcccgatag tgctttagtg tatcttcatc aaataccgga tccggaaaag    180
ttgacgggag aaaaccaagc tgattattgc ctactgttga cccaggcaat ggataagaat    240
gatttaccgt tgagctcgga ttcgttgata caaatagctg ttggctatta ttcaaatgga    300
aaagataggc taaaaaaggg taaagcgtca ttctatttag gaagggttaa atcttcaagg    360
ggcatgttag aggatgcaca gaaatatttt ttagaagctc tctctatatt ggatgtaaca    420
gacaatctta aatatcaggc attagtgcgc aatcatttgg ggcaactata tatgaattta    480
gacttgtacc aagatgcttt aataatgaat agtcaatcgg tctccttatt tcaacaatta    540
actgatacag ccaatcttgt gtatgcagag cgtgatatgg gacggattta tttattagag    600
ggtaggcaag atagtgcttc tctttattat cagcaggcta tcaacgatgc tctcagttat    660
tttaaatcgg atatatacaa ggatattgtt tctgagtggg gacagatttc aatgtattta    720
gagatgtctc cttcagcaga acaaatgctt ttgtcaaatt tggaatcaga cttagtctta    780
gataaaaccc cagtatgtct tagccttgga atttattatt tgtctaataa actctattct    840
aaagcagaag gatatttgtt gaaagcagct gcttcttcgc gaccatatac ccgtgtttct    900
gcatataaat atttggggca tcttgaaaca cgaaatttag atttgattta ttgggatcaa    960
tatgaacaag ctcttgattc tttggagcga cagaatttag cttatgcagt gaaagagatt   1020
caggaaaaat ataataatgc tgcgttgcaa gcccacactt ttaaattgga aaatgaaaga   1080
cttcattcca ccatatctta cttatcggta attctgttat tattgagtat aacctcggtt   1140
atctatgtgt tctatatgaa agaaaggcgt agaagacaga ttgaaaagga ggaattcaat   1200
agaaatatga aggcgcatga acaagagcga gcaaggttat tggcagagtt gagtgactct   1260
aaattgcatg tagagaaact tgaacaatta aagagcgaac agaaacagag ctctttggag   1320
gtgcaagaaa agacaaatgc acttttggaa caggaaaaag aacattcctg caaaattagt   1380
caacaattgg aagagctgaa aaagaaatgg aaaaatcaat tgtctataaa tattgatttg   1440
agagctcgaa ataaggattt gtcttataag ataaagtcat taaaagattc tgatatggag   1500
aatactcctg gcttatatgc atcaattaat ttgttggtca gaatattaac atgtgatctt   1560
tcagaaatta aaactttaaa agtggacgat tgggaaggat tgttccaatg tattgatttg   1620
ctctatggta attctttgag aaaatttata gatcagtacc aaaagcaaca tgatgaagag   1680
ttggatagaa gagtggttgc catttgttat tttgaatata tcaaagtgaa gcatgctcgt   1740
caagctgcta tttttgagagt ttcagctcaa gctttgagta aacgtaaaca gagacttaaa   1800
attgaacttg gagttcctga tatggcttct gtcggacggg tagtcaaacc agtttgtcca   1860
tcaaataaaa aggagttgat gtaa                                          1884
```

<210> 2910
<211> 1716
<212> DNA
<213> B.fragilis

<400> 2910

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tcctattttg atatgtttag attcaataaa gaaaataaat tccaaggcag gcatagattt     60
ctcttagcgg gtactctatg cctgcttgct gtatgttttc tgatggctca ggacaagaaa    120
cctcagcatg acaagaaagc gcagccggag cagaaagttg aaccggaaaa ggcacaaggt    180
aaaaagaaaa cacgtgtcga cttgcttcat gccgatcagg gacaggccga taagttggcc    240
```

```
cgccccgatg ttcaggtgct gatcggttcg gtcaagttgc gtcatgacag catgtacatg      300
tattgtgaca gtgccttgat ttacgagaaa accaattctt tcgaagcatt cagtaatgta      360
cgtatggagc aggggggatac ccttttcatc tatggtgatt atctgtttta tgacggcatg      420
acccagatag cgcagcttcg tgagaatgta aaaatgatca accggaatac taccctgttg      480
acagatagtc tgaattatga ccgtttgtac aatttgggct attattttga tggaggcacc      540
ttgatggatg aagaaaacgt gctgacttct gattggggcg aatacagtcc cgccaccaaa      600
ctatccgttt tcaatcacga cgtcaagctt gttaatcccc gttttgtact gacttccgat      660
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cgtgctttcc acaaagtgcg tatgtacagc atcgatttgc agggtgtttg cgactctttg     1140
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gggcaacaac tgttgggtga agagattaag gtctatatga atgacagtac gattgattgg     1260
gcccatatca tcaatcaggc acttacggta gaacagaaag actccattca ttttaatcag     1320
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ataggaaatg tcctggtagt ttattatcct caggagcaag atagtacgat gattggcatg     1440
aacacatccg aaaccagttt gctaaatatg tatcttaagg atcggaaaat ggagagaatg     1500
gtaatgagtc caaagtcgaa tggtacactt tatccgatga atcagattcc gcccgacaaa     1560
atgaaactgc ccacctttag ttggtttgat tatgtccgtc ctttaagtaa agaagacatt     1620
ttcaactgga gagggaaaaa ggccggtgag ctttgcgta aaaccgaacg taaagctatt      1680
agtggtccga aacgtgaaat aattaatatg aaatag                              1716
```

<210> 2911
<211> 324
<212> DNA
<213> B.fragilis

<400> 2911

```
tgttttttcg acatgaaatc acaaagatta ggtttgcagc caataaagaa ttacgaacga       60
gtggtcaatc ctcggaagaa acgattccac atgtcatccc gtatgaatag ccatggaaaa      120
attattatta ctaaaattgc cgattatgag agtaattata ttaaaaaagc cggtttgtta      180
gaaggtgatg aaattattgc tataaatgaa attcctatta aaatgatcac tatagaagag      240
aatacaaagt taaatcgacg aggtcaaggt aaatcttata aaataccggt ggttattgat      300
agaaatgagg ttcaaggtga ttga                                            324
```

<210> 2912
<211> 210
<212> DNA
<213> B.fragilis

<400> 2912

```
aaacatgccg aaatatacgg atcatttata aaacatcatt cttttagaaa tatgtttatt       60
aaattcattt ttgtttaac ctaccaaaaa gaagaacact attgccattt tccgacaatc      120
cattataaag cttttcaact ttacccctca tcgcagtatc catttcggaa agtttcaata      180
tctgcgatag ctgctctttc aattcaatag                                      210
```

<210> 2913
<211> 1020
<212> DNA
<213> B.fragilis

<400> 2913

```
attaaaacag aattgatgga aaaaataaat gcagtaatca caggagtcgg aggatatgta       60
cctgattatg tcttgacaaa tgacgagata tctaagatgg tggataccaa tgacgagtgg      120
attatgactc gtattggagt aaaagaaaga cgaatactga acgaagaagg attaggtact      180
```

```
tcgtacatgg cccgtaaggc agctaaacag ttgatgaaaa aaacgggttc gaatcctgat    240
gatattgatt tggttatcgt tgcaactact actcctgact atcatttccc ctcaacagct    300
tctattcttt gtgataaact cggactaaaa aatgcttttg ctttcgatct gcaagccgct    360
tgtagcggat tcttgttttt gatggaaaca gcagccaatt ttatccgttc gggacgatat    420
aaaaagataa tcattgttgg tgcagataag atgtcatcaa tggtagatta cacagagcgt    480
gcaacatgtc ccatctttgg cgatggagcg gcagccttta tggttgaacc gactacagaa    540
gatctgggaa ttatggatgc tatcttgaga actgatggta agggattgcc tttcctccat    600
atgaaagcgg gcggttcggt ttgtcctcct tcctatttca ctgttgacaa taagatgcat    660
tacattcacc aagaaggtag aacagtattt aaatatgctg tttcaaacat gtctgatgtg    720
agtgcagcta tagcagaaaa gaatggtctg acgaaagata acatcgactg gattgttccc    780
catcaagcca atatgcgcat catcgaagcg gtagctcatc gcatggaagt tccgatggag    840
aaggttctgg tagatattca gcattacggt aacacgagtg caggtactct gcctttgtgt    900
atctgggatt ttgaagagaa acttaagaaa ggcgataaca tcattttcac tgcgtttggt    960
gcagggttta cctggggagc cgtgtatgtg aaatgggggtt acgacgggaa aaaagaatag   1020
```

<210> 2914
<211> 393
<212> DNA
<213> B.fragilis

<400> 2914

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tcgattagtt tctcgatttc aattacaagg tttttacttc cggcgcaaag acgcttttgt     60
aaactctctg tttctttaat ccttttatta ttaaatcatc ttccggagag ttttatttca    120
tttatttcat ttttatcat  tttcactatg aacatttatg ttggaaacct tagctaccgt    180
gttaaggaag cagatctgca acaagttatg gaagactacg gaacagtaac ttcttgcaaa    240
gtaatcatgg atcgcgaaac aggcaaatca aaaggtttcg gtttcgtaga aatcgctgac    300
gatgcagccg gtgcaaaggc tatcgccgaa ttgaacggag ctgaatacga aggtcgtacc    360
atggtggtta agaagccag  accaagagag taa                                 393
```

<210> 2915
<211> 189
<212> DNA
<213> B.fragilis

<400> 2915

```
aataggcttt tgagaaataa agatttctct ctatcggtga ttggcattga taaagcccgt     60
gattatccag tgaaatgtat tgaaatacgt gaagtagctg atgtagagta tataccgctg    120
gaagcagtta gctcttcttt gttaataaat gacatttggg gatactatgt gttctacttg    180
tcaaaatag                                                            189
```

<210> 2916
<211> 774
<212> DNA
<213> B.fragilis

<400> 2916

```
caaaggatat ggaagaaagc aagcaagatg gtgcttcgta ctgaagactt ggtgaaaaag     60
tacggtaagc gtacggtggt gagccatgtt tccatcaatg tgaagcaggg cgagattgtt    120
ggtttgctcg ggccgaacgg tgccgggaaa actacttcgt tctatatgac cgtaggattg    180
attactccga atgaaggccg tatttttcctg gatgatcttg aaataacaaa atatcctgtt    240
tacaaacgtg cccagaccgg tatcggatat ttggcccagg aagcttcggt tttccggcag    300
atgacggtgg aggacaacat tgcctccgtg cttgaaatga ctaataagcc tctcgattat    360
cagaaagata agcttgagag tctgatagcc gagttccgtt tacagaaagt gcgtaagaac    420
aagggtaccc agttgtccgg tggtgagcgt cgccgtacgg aaatagcacg ttgcctggcc    480
atcgaccca  aatttatcat gctcgatgaa ccgtttgccg gtgtagaccc gattgccgta    540
gaagatattc agcagattgt ctggaaattg aaggataaga atataggtat cctgataacg    600
gaccataatg tgcaggaaac gttgagtatt accgatcgcg cctatctgct gttcgaagga    660
aagattctgt tccaaggcac tcccgaggag ttggcagaaa ataaaattgt gcgtgagaaa    720
tacctgagta acagttttgt gttgcgtcgc aaggacttcc agctgaaaga ttag          774
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<210> 2917
<211> 675
<212> DNA
<213> B.fragilis

<400> 2917
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cttatgaatc gtactttctg ttttgttccg gttcgcaaag ggagtagagg tattcccggt      60
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gcttccggca tagcggacga ggtatgtgta gcgacaaatt gtgatgaaat ggagagtctg     180
atacgaggcc gttacaaagg agttgtacag atattcaggc gcagtgagtg gagtgcaagg     240
gatgaggctt ccagcctgga agttgtacag gaatatctta attatcgtaa gccggaccgg     300
aatgatgatt ttattttgtt acaggctact tctccttta cgactgcaca agaactaagg     360
gggcttgtag aagagatgaa aagggggaa gcggattcct atgttgcctg ttgccgtttg     420
aagaagtttc gttggagtga tgaggggaga cctttggact attcattcga aactaaacct     480
cgccgacagg agtacaaagg ttttctgata gagtcgggag ctttctatgc ttctacggtg     540
ggaagaatac tggactccgg gcagcttctt tcgggagttg tgaaggtggt ggaggtcggt     600
cctgcaggga tgatagatgt cgatgaagaa gcggactgga gactggctga acattatatt     660
gaaaccgggc tttaa                                                       675
```

<210> 2918
<211> 1368
<212> DNA
<213> B.fragilis

<400> 2918
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ataattgtca gaatgaacgt ttcattacaa aacattgaca aagtaagcgc attgcttacc      60
gtgaagcttg aaaaagctga ctaccagcct caggtagaca aatcgttgaa gaacatccgt     120
cagaaagctc aggttccggg attccgtccg ggtatggttc ccatgagctt ggtgaagaag     180
atgtatggta agtcagttat tgccgacgag gtgaataaat tgctttctga gaaagtatac     240
gcatacatca aggagaacat catcaacatc cttggcgatc cgatgcctat cgaagaaaag     300
cagccggata tcgatttcga tacaaaggaa gaattcgaat tcgtgttcga tatcgcttgg     360
gctccggaat tcaaagctga ggttagcgac caggacaagg tagactacta tacaatcgag     420
gtacctgacg agatggtgga aaaccagatt aaggcttata ctcaacgtaa cggtaaatac     480
gaaaaggtag atgcttacga agagaacgat atgctgaaag gtctgttggc cgaactcgat     540
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tacatgaaga acgacgagca gaaggctatc tttgcaaatg caaaggtaaa tgacgtattg     660
gtgttcaacc cgaacactgc atacgaaggc aatgccgttg aaatggcatc actgctgaaa     720
atcgataaag aagctgctgc cgaagtaaaa ggcaacttca gcttccaggt agaagaagtt     780
acccgtttcg taaacggcga actgaaccag gagattttcg accaggtatt cggcaaagat     840
gttgtgaaga ctgaagaaga attccgtgcc aaagtaaaag aaagcatcgc agctcagttt     900
gttgccgaca gcgactataa attcctgatc gacgttcgca aggtattgac cgataaagta     960
ggcaaactgg aattccccga tgcactgctg aagcgtgtca tgttggtgaa caacaaagat    1020
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ctgatcaagg aacagttggt gaaagaaaac gatatcaagg tagagcagga cgacgtgatc    1140
aacatggcga aagaagctac aaaagctcag tttgctcaat acggtatgct gactataccc    1200
gatgatatcc tcgagaacta tgcaaaagag atgctgaaaa agaaagaaag catcgacggt    1260
ctggtaaacc gcgtagtaga aaccaaattg ccgctgcac tgaaaggcaa ggttacattg    1320
gagaacaaaa ccgtttcaat ggaagaattc aataagatgt ttgaataa                 1368
```

<210> 2919
<211> 267
<212> DNA
<213> B.fragilis

<400> 2919
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tccctcccaa gagctcatat cgacggaggg gtttggcacc tcgatgtcgg ctcgtcacat      60
cctggggctg gagaaggtcc caagggttgg gctgttcgcc cattaaagtg gcacgcgagc     120
tgggttcaga acgtcgtgag acagttcggt ctctatctat cgtgggcgta tgaaatttgc     180
```

```
gtggctctga cactagtacg agaggaccgt gttggactga cctctggttt accggttgtg    240
ccgccaggtg cattgccggg tatctaa                                        267
```

<210> 2920
<211> 243
<212> DNA
<213> B.fragilis

<400> 2920
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tcgttgcaaa ggtacaaaaa aagcccaaac gttatgtact acttaactaa ttttcatctg    60
aatcttaagt tagtagacat aattcgggcg acaaagatac gaataataat cctcataaca   120
tacaaattat cagtaaatat tcgtatttta aatagtattt tatttataac ccgctttccc   180
tactcccagg gtcagagtag aaacagggca gcccggcgct ccctttcctt ccccccgta    240
taa                                                                 243
```

<210> 2921
<211> 291
<212> DNA
<213> B.fragilis

<400> 2921
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tgtgttatga gaataatatc atttgcagcc ataagaaatt acgccaaaaa gcacgctgat    60
gctgatgtac ctttgcgtga ttggtataaa aaaacagaaa aggcagattg gtcgtgtttg   120
gctgatataa agcaaacatt caatagtgtt gactatgtag gtaatgatag atttgtcttt   180
aacatcaaag gcaatgatta caggctggtt gctatgattt tgtttgctgc taaaaaagtg   240
tttatccgtt ggataggtac tcataaagaa tatgataaca aagattgtta a            291
```

<210> 2922
<211> 783
<212> DNA
<213> B.fragilis

<400> 2922
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acttttaatg ggatgatcga agtaaaagga ctctataaat cattcgaagg caaaacggta    60
ttgcataata tcgacgccac tttcgaaaat ggaaaaacca gcctgattat cggacagagt   120
ggttcgggaa agactgtact gatgaaatgt atcgtcggat tgctgacacc ggaaaaagga   180
gaagtgctct atgacggacg caacttcctg gccatgggga aaaagaaaa gaaacacctg   240
cgacgcgaga tgggaatgat tttttcaaagc gcggcgttgt tcgactccat gtctgttttg   300
gataatgtta tgtttccgct caacatgttc ggcaccgaca ccttgcgcga acaaaccaaa   360
cgggctatgt tctgcctcga ccgtgtcaac ctcacggaag ctaaagataa atttcccggc   420
gaaatcagtg gaggtatgca gaagcgtgta gccattgcac gggccattgc actgaacccg   480
cagtatctct tttgcgatga accgaactcc ggactcgacc ctaaaacttc tttagtgata   540
gacgacctga ttcatgacat cacacgggaa tacaacatga ctaccatcat caacacccac   600
gacatgaact cggtaatggg aatcggtgaa aagattatct acatttatca gggaaccaaa   660
gaatgggagg gcacaaaaga tgacattttc acatccacca cgaacagtt gaataacttc   720
attttcgcct ccgacctgct gcgtaaagta aaggatgtag aaatacaaaa cctcgaagga   780
taa                                                                 783
```

<210> 2923
<211> 255
<212> DNA
<213> B.fragilis

<400> 2923
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gtcagcaccg gcagacggcc gataatctcc ggaatcagtc cgaacgactt caaatcttgc    60
ggtgcgatat attgcatcat gttgtttttg tcgatagtag ccgtcttgcg ggaagcattg   120
tatcctacga catgggtgtt gagacgctgg gcgatcttct tctcgatgcc atcgaatgca   180
ccaccacaaa tgaaaaggat gttttcgtg tttacgggaa tcatcttctg tcggggtgc   240
ttgcgtcctc cctga                                                    255
```

<210> 2924
<211> 1233
<212> DNA
<213> B.fragilis

<400> 2924

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tcaacactta tctttgatgt atacaattta ataaatatgc ggatgaataa atattggggt    60
acatggatcg tatttatagg agttttttt cattcatgta aacaagaagt caagcagaat   120
aatatatcct tttattctgt cgatttactg gaaatggaga aaatgaaagg ggaagaaata   180
ttgctttctg atttgataga atcattggaa attattaagt tggataacag agaagaggca   240
ttgattgcta cttatccctt tggtatcgat gtttcaagca attatatctt aatagagcca   300
gatggcgttt ctgctttgaa attatttact cgtaagggac gatatgtggc tgatataggt   360
ggagttggtc aaggccctgg agagtataaa tatgctgtga atagatttct tgatgaaaag   420
cagggacgtg tggctattgc cgaaaataaa aaaatattat tttttgatct caaaggccaa   480
tttttatcgg aagagagtat ttcattgccg gaaacgataa cgaagagttc catttggata   540
gatttggaaa atgaaaaagc tgtagtggtc gttcttccct ttgctgatat aggaaatcca   600
aaagcaccga tcagtaagaa tctatgctgg gtacaagatt ttaaggggaa tatcttgcaa   660
aaaatatctg ctataaatta tgcaattgtg ccggattata gtaatgaagt attggctccc   720
cggaatgttg atgcctattc tttctccctt tgtcaggttg tcgggcgtac acgccctgac   780
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gtaatgcagg aggataaata tattgtaacg tcattgtatg agactccgga atattattgg   900
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acttatgaac ctcttgaatt gatggaagct ttggataaag ttcttgccca aaccgattta  1140
aagcctgacg tacgtaaacg ggccaccgat ttacgaaata gtctgcacga gaatgataat  1200
gacattctta tcattggaaa actgaaacaa taa                               1233
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<210> 2925
<211> 1212
<212> DNA
<213> B.fragilis

<400> 2925

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agagagtata tgaaaaaata tttatacttt attttttttg taactttatg gtcgtgttca    60
gctgataagg ttaatgtaaa aagtgaggat aattctttt actcagttga tttgcgtata   120
atagagaaga ccaaagggac agtgatgtct ttgggtgatt taatggaatc atacgaaatc   180
attagattgg acaat, aggga tgaggcgctt attaaaacct atccatatgg tgtatatgtg   240
acggataatt atattttgtt gcgacctgct gacgttgtat ctcctgttaa gctatttacg   300
cgcaagggac gatatgtggc tgatattggc ggagtaggtc aaggcccggg agagtattta   360
tatttatttt catggttggt ggatgagaaa gaaaatcgta tttatttagg tccgggaaga   420
gccgacaagg tgcttgtcta tgatttaaag gggaattatc tgccggatga ggttattcgt   480
ttcggggaaa tagtacataa gtctcagata tgggtggact atgataaaaa aaacgtagtt   540
gtggttactt tacccttttc tgctaatgtg aactcgaact ttgcaattaa taagaatgtg   600
tgctgggtgc aaaatagggga tggtgatatc gtgcatcgga ttcctgtaaa tcattacggt   660
ttaattggag attacagtaa tgctttagtg cacgtcgga atgtggatgc gatttctttt   720
tctatttctg aaatacccat gttgcgtact cgtcctgata ctttgtatca ctatgatgcg   780
gtaaagaata taataactcc atgctttaca atagatcatg ttgtttctga aaatcaaagt   840
gcttctactg ttttatatga aacttcaagg agctattggg catatgtcac tttatatccg   900
aatgatattt cttcaagtgc ttttttctgtc cgtctgacta catttaatgt ttgcgtttcg   960
aaaaaggatg gcaatgtacg gcgcattgat cgctttactg atcctctttt aggtttatct  1020
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atggatgctt tagataaagt ccttacccaa acagatttgg agcttgacgt acgtaaacgg  1140
gccaccgatt tacgaaatag tctgcacgag aatgataatg acattcttat cattggaaaa  1200
ctgaaacaat aa                                                      1212
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<210> 2926
<211> 252

<212> DNA
<213> B.fragilis

<400> 2926

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attttaaata tcatgaaaac attgagacgt attaaattga atagtttaag tcaagaagat      60
ttggcagacc gtgaaatgaa tatgcttcgt ggtgggagta actgttcttg tggctgtatg     120
ggtgttagtt ctaaggcaag taatttagag ggtaataagg attgcggata ccctttatct     180
tgtacatgtg gctgtactgg accttatgct ttagcagcta atcaggaagc taataaagga     240
gcggggatat aa                                                         252
```

<210> 2927
<211> 504
<212> DNA
<213> B.fragilis

<400> 2927

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tcagtaagta taataatact tgtaaaattt aggtttatgg ataaaatcta tttatggctt      60
ctgcttctca tttcatgtag ttgctctcat actaaagaaa aggtttctaa tgacatggat     120
tcctctttgt gtgtcataga tgttacttgt gaatatcctg ttgagaaagt gaatatacat     180
gatgttgccg atgtagagta tgttccttta gaaacgacac gaaattcact gcttgcgtcg     240
gattgttctg tttttcggat ttcagatgat tatataactg tcgcaagtgg tgttgataat     300
ggcaatatct ttttctttaa tagaaaaggg aggtacttgt ggacttttaa ccggcgagga     360
ggatctgctg aagagtacag ttctataacc gcatgggatg ccgattttgg catgcaagaa     420
atatacatct atgattcgtt caggaaaaag atatatacct taattccgca acactataat     480
ttaactttat ttataagttc ctga                                           504
```

<210> 2928
<211> 807
<212> DNA
<213> B.fragilis

<400> 2928

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ttgcggattt taggatatat ttattctttt gatggacggt ataaacgtag ccatgctttg      60
cctatgaagg attgcacatt tatcgatctg tataattatg ataaggatta tctgataggt     120
tataatcggt tttatgactt tcgcaaaaag aaaaaggtgg atacgcatcc ttactatctg     180
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gagaaggtac atacagagat cgtcaaattt cccggagggg cttataaaga tcaggtcctc     300
tttctcataa ccgcgctgat aaaaaatggc gatgctttct tgattgccga ctatgctttg     360
gatactattt acagctatcg tcatcacaaa ctggttccta tcgccgtgca gactccttcg     420
gtatatgcat cagatccacc ggtcattgtc gcttgtgaat tatacaccga ttcatatttg     480
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gctcctgagc ttgtgttaaa caggcataca ggcaagattg cggaatggaa aatgtatgat     600
tataattatt cctccgatat agaaaggcct gtgccgacta tgatacttca gtctgctgat     660
agagaaaatt atggtataag catgtttaca gcggaaaggc ttattgaaca atatcaagca     720
ggcgggttga aggggagct gaaggatatt gcatcccgat tgagtataga tgataatgat     780
atattaatga tatgtaaata taaataa                                        807
```

<210> 2929
<211> 1257
<212> DNA
<213> B.fragilis

<400> 2929

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gaaataaaca tggctgaatc aaagaataat aaaaaaaggt gtagcttttg cggtcgttcg      60
gagaatgaag tcggattcct gattacggga atgaacggct acatctgcga cagctgtgca     120
acccaggctt atgagatcac tcaggaagcc atgggagccg gcaaacagag cgcggggct      180
acccgactca acttaaagga actacccaaa ccggtagaaa taagaatttt cctcgaccaa     240
tatgtgattg gccaggacga tgccaaacgc tttcttgccg tatcggtgta taaccactat     300
aaacgcctgt tgcagaaaga cagtggcgat gatgtggaaa tcgagaagtc gaacattatc     360
```

```
atggtgggca gcaccggaac cggtaaaaca cttttggcac gtaccatcgc caagctgctg   420
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<210> 2930
<211> 741
<212> DNA
<213> B.fragilis

<400> 2930
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aaagaacttt ataccattat tgccgatcat tcgggtacct cttttgataa ggtttgggcc   660
gattcggacc gtgactactg gatgactgcc caggaagcaa aagaatatgg tatgattgac   720
gaagtgttga ttaagaaata a                                              741
```

<210> 2931
<211> 420
<212> DNA
<213> B.fragilis

<400> 2931
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ctaaaaaaaa ttgctatgaa acacttatta agtacgatta tttttctatt tgctgtcatt    60
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aatctggact tgaaaggaat attcagtagt actcatacaa aatcactccc tttgacacct   180
gtggaagcgt ctcttgtaga taatactctt cttaatatat cttttgtagt tcattccgga   240
gaggttactg tacgtattct ttcagagaag gggatattgt attcttcttg tataaattcg   300
gatcagcaaa actccttagc tatttctgta gaagattttg aaaggggaga ctataagctg   360
gagttgacaa cgccagcagg aggatacgtc tatggttggt tcactattaa ttgggaataa   420
```

<210> 2932
<211> 1380
<212> DNA
<213> B.fragilis

<400> 2932
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atacacagaa tgaagaagtt tgtgaacttt aagtttgttg ttatgtttgc cctggcactg    60
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ggcgacgaag ctatcctgaa gtccgatgtg gaagaagcac gactggccgc tttgtatgaa   180
```

```
gggcgtaagt ttgatggtga tccttattgt gtgattcccg aagagttggc cgtacagaaa    240
ctttatatgc accaggctgt gctcgacagt attgaagtgc ccgaggcaga agtcatacag    300
cgtgtcgact atcagatcag taattatatt caggctttgg gtagcagaga aagaatggaa    360
gcagagttta ataagacctc tacacagatt cgtgaagcca tgcgcgagaa tgcccgtgac    420
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gttaatccta aagatggtaa ggaagtttgt gccattgtta aactgaagtc acgtatcaac   1200
gggcataaag ccacgatcac cgatgactac cagaacctga aagaaatcgt gctcgacaag   1260
cgtcgcgaag aagcgttgca gaaatggatc gttgaaaaac agaagcatac atacgtacgt   1320
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<210> 2933
<211> 972
<212> DNA
<213> B.fragilis

<400> 2933

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gtacgaagca ccatcttgct tgctttcttc catatccttt gttattttgc ggcaaatgta    180
gcaaaaataa gccgaaaaaa cgtacatttg caaacaaata tacgagttat gattaaagca    240
ttaagaaccg tcggcagata catcatgctt atggggcgga cttttcacg tcccgagcgt    300
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gattcggtgg tttccagcag cgtactgatt ttgtttgccg acctggtatt aactaaactt    960
ttaatgggat ga                                                       972
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<210> 2934
<211> 1905
<212> DNA
<213> B.fragilis

<400> 2934

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ttagtcgaaa atgccattga tgctgaggcg cagaatattc atgtgttggt caccgatgca    180
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cgcacgatgg ggtttcgcgg tgaagcattg gcttccattg ccgccgttgc tcaggtcgag    360
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gtggagagtc aggaagcggt gtcttgtccc aaaggaagca atttttctat taagaatctc    480
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ttggtcgata atctgtttgc ctgtccttca cccaactata cgccggacgg acgcgtggtg   1860
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<210> 2935
<211> 711
<212> DNA
<213> B.fragilis

<400> 2935
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atgcggcgta tgctggagtc ggtctctgat gtcagagttg ccgatgcggt gacttcgggg    180
gcaaaagctg ccgagctgat tggagagcgg gattatgaca tctatgtgtt ggatgtgaat    240
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agtctcagtc ctgtacaaat tcactcgaaa gatatccCta caaagcgaga gctcgatgta    540
ctgaaagctg tcgcgagggg atgtaatacg cacgaagtgg ctgccgaatt aaaaatctcg    600
gagaatactg ttgagacatt tcgtaagagg ctgattcaaa agttctgtgc aaagaatgct    660
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<210> 2936
<211> 1233
<212> DNA
<213> B.fragilis

<400> 2936
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gtatctaatg atatgtattt tattctggat aaactggaaa cagataaata cactatatta    180
tcagacgaaa atcttcaaac tcaaacggta tctttttggg tgaatagact tagagaaacg    240
tttaatggtg atattcttcc attttcagac gggagcgttc ctcccgccat ctttcctcct    300
ttcataaata atcagaggga ttttgaaaga ttgaatactt atgaatgggt agagaaggat    360
aatcaagtta tgaattactt agaagaaata tatctttatt tgaatggttg tgaggaagag    420
gacgattcaa tctggaaaca gatcccttca tatttatgta gcgataaaga gatggatagc    480
agaaaactcc tgcaatggtt agatggttgt atagataagc aaataagtca agtctattta    540
```

```
ttgggtggag atgtgttgat gtataaagac ttaaatgaaa tatggggaat gctggagcaa      600
aaatctatga gtattcagct ttattatcga tacgaccttt ttacagaaaa ccataaaaaa      660
cttttgaatg ctacaatcgg gcagttaact tttgtggtac cgatgtggaa atttgatgag      720
gaactatttt cttctctgag ccgtacggta gaaggcatag aacagaataa acggtggtta      780
ttcctgatta catcggataa tgagtatgaa cttgctgagc aattggtaag caagtactcg      840
ttagagagta gatcaataag acctgtttat aaggaagata acctttcttt ttttaaagat      900
gctgtatact tggaagagac tgatatttgt aatacttgtt tggagaagag agatttttat      960
gtcagtcaga aaataaataa gaatgatttt gggcgattaa ctgtttttacc tgatgataaa     1020
atatatgcaa atgttaacca tgctgagatt ggagttatgg agaaagatac aatagcatct     1080
gtattgtata aagagatgac cgaaggtcat tcctggcttc gcatccgcga tcaaaaacct     1140
tgctgtgact gcatttacca atggctgtgt ccttcgccct ctaattatga attggctatt     1200
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<210> 2937
<211> 1620
<212> DNA
<213> B.fragilis

<400> 2937

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accgctttgg tatcggttta tcacaaagaa ggtttggatg aaatcattac caaactgcac      180
gaagaaggag tagagttcct gtcaacaggc ggaactcgtc agtttattga atcgctgggc      240
tatccctgta aggctgtcga agatttgact tcgtatcctt ctattttggg tggtagagtg      300
aagacgctgc atccgaaaat attcggagga attctttgcc gccgtggact ggaacaagac      360
atccagcaga ttgagaaata tgaaatccct gaaatcgacc tggttattgt agacctctat      420
ccgtttgaag cgactgttgc ttcgggtgct gatgaggctg ctattatcga aaaaattgat      480
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gcttcacaag ctcaatataa acctttgctc gatatgttga tggagcacgg ggccacttct      600
tctcttgaag aacgtcgttg gatggctaaa gaggcatttg ccgtatcttc acactatgat      660
tcggctatct tcaactattt tgatgctgaa gagggttctg ctttccgttg ctctgccaat      720
agccagaaga cgttgcgtta tggcgaaaat ccacatcaga agggatattt ctatggaaac      780
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gatgtagatg cactcgaaat tctgggacag aaaaagaatc gtatcatttt ggttcgtaaa     1140
gaggctaaat tgccgagaaa gcaattccgt tctttattga atggtgtatt ggttcaggac     1200
agagacttga atattgaaac aactgcagac ctgaaaacgg taactgataa agctccgaca     1260
ccggaagagg tagaagatat gctgtttgct aataaaatag taaaaaacag taaatcgaat     1320
gccattgttt tggccaaagg aaaacaattg ctggcaagcg gtgtgggaca gacttcacgt     1380
gtggatgcac tgaaacaagc tatcgaaaaa gctaagttgt ttggtttcga tttgcagggt     1440
gcggtgatgg catcggatgc tttcttccct ttcccgatt gtgtggaaat tgcggataag     1500
gaaggtgtga cagctgtgat ccagccgggc ggttcggtga agaccagtt gacatttgac     1560
tattgcaacg aacatggcat ggcaatggtt acaacgggta ccgccactt taagcactaa     1620
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<210> 2938
<211> 384
<212> DNA
<213> B.fragilis

<400> 2938

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cgaatctgtg acgagattct tctcggacag tatcaggagg aagaacgaat tccttctgta      120
agggagtatg cagctatggt ggaggtaaat gccaacacgg ccatgcgttc gttcgattat      180
cttcagtcac aagatatcat ttacaataaa cggggtattg gttattttgt ttcttccggc      240
gcaaaggagc tgatttttt acttcgtcgg gagactttc tgaaggatga acttgagcat      300
gtattccgtc aactctatac acttggagtt tcggatgacg agttgttgac tatgtaccgt      360
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aactttatga tgaaacaaaa ataa   .   384

<210> 2939
<211> 663
<212> DNA
<213> B.fragilis

<400> 2939
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atcactttct ttatgctttg tacctcgctg agtaaacctc agacgatgga gataagcatg   180
ccgagcaatg ataaaaacat caccgaagaa cagcaaagca aggtgaaagc ttcacaggca   240
atcactctgt tactgggccc cgatgacaaa ctatattatt atgaaggaga acctaattac   300
aaggattata cttcgctgaa agagacgacg tataaaccgg atggattacg ggggatactc   360
ctgaagaaaa atgcgactgc tgtcagacaa gtcaatgatc tgaaacagaa aaagctggaa   420
cttaagatat cagaggatga atttacgaag caactttctg aaataaagag tggaaagaat   480
actcctacag tcatcattaa ggcaatggat aatgcatcgt ataaaaatct gattgacgct   540
ctcgatgaaa tgcaaatatg taatattggt aaatatgtga taacgaacat tgctgaagcc   600
gacgagtttc tggtgaagaa ctttgaaagc aagggtgaac tttcacagaa tattgccgac   660
taa   663

<210> 2940
<211> 1422
<212> DNA
<213> B.fragilis

<400> 2940
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atgatgctaa aaacctggtt aggcaaaaaa gggtttaatg tatcatcagt gagtaacatt   180
gcacgtgcgc aaaagcacat cgatgcacaa ccggtagacc tgattctttc cgacttgcga   240
cttcccgacc acgatggtat tcacctgttg aaatggatgg gtgagaaaga gctccatatc   300
ccattgatta tcatgacagg atatgcagat atccaatcag ccgtacaagc aatgaaactg   360
ggtgcacaag actatattgc caaacccgtt aatcccgaag agctgcttaa gaaaatgagc   420
gaagcacttc aaaagaaaga agctcctctt cccaaaactc ccctcacgga gaaaagccct   480
aaaaccaaac aagaatctca ttcctatctg gaaggagaaa gtgatgctgc caaacaactc   540
tataactatg tcagcctggt agctcccacc aacatgtcag tcctgatcaa cggtgccagt   600
ggaacgggaa aagagtatgt agcccatcgt attcaccaat taagcaaacg tagcgacaaa   660
ccgtttattg ccatcgactg tggctccatc cccaaagagt tggccgcttc tgagttcttc   720
ggtcacatca aaggctcctt caccggtgct ctctctgata aaaccggtgc ttttgtagca   780
gcgaacgggg gtaccatctt tcttgatgaa atcggtaacc tgagttacga aatacaaatt   840
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actgtcgata tccgtctggt gtctgcaacc aacgagaacc tggaacaagc catcgaaaaa   960
ggtacattcc gcgaagacct ctaccaccga atcaatgaat ttactttgcg catgcctact   1020
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gctcaaggca gtttcatagg ccttgcagaa ctgggtagtg aaattctgga aacacaacta   1260
tcaactccca aaatgacatt acgggatgaa gatgccgaaa aggaacatat actggaagca   1320
ctccgacaaa caggaaacaa caaaagccgt gctgcacaat tactcgatat tgaccgcaaa   1380
acattataca ataaactgaa actatacgga atcgacctct aa   1422

<210> 2941
<211> 1296
<212> DNA
<213> B.fragilis

<400> 2941
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tcaatcatgg agaaatttga ctccatgctt tcacccgtta tcgactcaac actgggtcag    120
agatgcagca gtatcttcgg atatcagttc agcgagatag tccgttcgct gatgagcgtt    180
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cctgccaagt ggatcatgac tgcaaggcaa tacgtgctga atatctacac agagaaccga   1260
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```

<210> 2942
<211> 867
<212> DNA
<213> B.fragilis

<400> 2942

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gtcatagcat cagaatatta taaaacacgt cacgatgtag ctgcaaagtt atttctattc    180
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```

<210> 2943
<211> 1542
<212> DNA
<213> B.fragilis

<400> 2943

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tcgcaagctt ccgattactt ttgcacgtgg aatttacaag gctatgtggc cagctataaa    180
agtactgaac tgaccagggc tgctatgact gaagattatt atttggggga cgggctttat    240
cagaattggg tggattgtta tcctgcaatc cgaaaagatc tttactttgt aatggacgat    300
tcgtgggata ttcctaaaga tgtgaatgat tcacccaatc cttatttagg ttgcgtagaa    360
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gcagagacgc atgcagctat tcctgaagag gagtattgga acaacgaat taaagcggca    540
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aatgctgccg gatttgatta ttggaaagtt gattgggggga aggaagacag gaatgggggaa    600
tggagaagaa agttgacagc tatcggcaag cgatatgctc cccatttata tatagaacat    660
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aatcgattga taattccggg agaagtaatt agccgggtag gacttatgaa tgcttcagaa   1500
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<210> 2944
<211> 810
<212> DNA
<213> B.fragilis

<400> 2944

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gtgtatgcaa acgacacgcg tcgtgtgtgg ttggacgaag cttgtgtgaa tgttgtttct   240
tctacagatg gaaaaaccag acttttaagt ccggaatccg aatatctgaa aatcagtcag   300
aatgcagata cattggtcat ttgcctggat ttgacaactt atgatcttcc taagcaaaaa   360
aaggagtatc ttattccggc cctgcaagct aaaggattac aactgaccat agaagccgac   420
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catgccgact ctttgactac atatataaga ggaggggaat tacgtttgga ctcttgtgag   540
atacgtgctt tttgtgtcga tggagatgga gtgacattta atgctcatca atcaattatt   600
ccccatctct atttagattt ggatggcgtc aggaattggg gcgttcatga atctgtaatt   660
ggtactgaac atctgaccgg aagtggagtt tatcataata acttgcagag gggtgagtgt   720
aaaaagatga tctggactcc gaagaaagag gacgccgaat tgagattaac tatacgggag   780
aagggaagtt tgatacttca agaagaataa                                     810
```

<210> 2945
<211> 252
<212> DNA
<213> B.fragilis

<400> 2945

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gttcctgagc aacaaaaagt tgcccaggat tttgccatgt cagaattttc acttatctta    60
gtgttgcaaa aagaaaacaa gcaaaactct aatatgacat ggcaaaaata caaattaaat   120
ctgagaaact cacacctttt ggaggaattt tttcaatcat ggagaaattt gactccatgc   180
tttcacccgt tatcgactca acactgggtc agagatgcag cagtatcttc ggatatcagt   240
tcagcgagat ag                                                        252
```

<210> 2946
<211> 303
<212> DNA
<213> B.fragilis

<400> 2946

```
ccaatattcc tcactgctgc ctcccgtagg agtttggacc gtgtctcagt tccaatgtgg    60
gggaccttcc tctcagaacc cctatccatc gaaggcttgg tgagccgtta cctcaccaac   120
```

```
aacctaatgg aacgcatccc catcctttac cggaatcctt taataatgaa accatgcgga    180
atcattatgc tatcgggtat taatctttct ttcgaaaggc tatccccgag taaagggcag    240
gttggatacg tgttactcac ccgtgcgccg gtcgccagca aagaaagcaa gctttctttc    300
tga                                                                  303
```

<210> 2947
<211> 852
<212> DNA
<213> B.fragilis

<400> 2947
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gcagtgtgta tctatcattt tattttggga aatcccacta actttatgaa caatgaccct   180
aacaaccatc cgcttccggg aaactttatg ggaaccattt acaaaggtgg tgtgattgtg   240
cctgttatcc aaacgttatt gctgactgta ttggcattga gcattgaacg ctattttgct   300
cttcgttcag ctttcggtag aggttctttg gttaaatttg tatctaacat taaagaggct   360
ttgtcggtag gagaccttcg gaaagctcag gaaatctgtg acaaacagcg tggctctgta   420
gcaaacgttg taacttctac actacggaag tatgaggaaa tggagaatga atcttctctc   480
tcaaaagatc agaaactact tgccatccaa aaggaactgg aagaagctac ggcgcttgaa   540
cttccaatga tggaacagaa tcttccgatc attggtacta ttactacttt gggtactttg   600
atgggattgc ttggtacggt tatcggtatg atccgttcgt ttgccgcttt ggctgcaggt   660
ggttctgctg attcaatggc cttgtcgcaa ggtatttctg aggctttgat taacacagct   720
ttcggtattc ttaccggtgc gttggcagtt atctcttata actactatac aaacaaaatc   780
gataagttga cttacagtct cgatgaggtc ggtttctcta ttgtgcagac ttttgcagct   840
actcataaat aa                                                       852
```

<210> 2948
<211> 198
<212> DNA
<213> B.fragilis

<400> 2948
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aacaagatca aaaccatgaa tggatatttg cctgtaggcc gtttttatag actttaccgg    60
attgtggccc gcaaaaaacg agaaacagag ggttacgatt atcaatttga cacattgaca   120
aaccgaccat ctcctccctc gcgactcccg gagggtgatt taaagttcac cggcagggag   180
cgtaccaaag aggtgtga                                                  198
```

<210> 2949
<211> 195
<212> DNA
<213> B.fragilis

<400> 2949
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cctccaacca agttggatga cattccttca gaatgccggg ttgtcccatt cggaaatctt    60
cggatcaaag gtcatttgca cctacccgaa gcttatcgca gcttatcacg tccttcatcg   120
cctccgagag ccaaggcatc cgccatcgc ccttatttac tttctttat cgccagattc   180
atctcctttt cttaa                                                    195
```

<210> 2950
<211> 2379
<212> DNA
<213> B.fragilis

<400> 2950
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ttgattaaca acagagattt aaacaggatg atacgtaaag aaacagttca tataatatgg    60
ggtaccatac aagccggtct tgtaatgttg ttgttgggag catgttccac aaccaagcac   120
ctgcccgaag gggaaatact ctacaccgga tcgaagacta ttgttgaaaa cgagccacaa   180
gcgcctttga cagaggatgc gctgaccgaa cttgatgccg cactcgataa agctccgagt   240
```

```
acaaaaattt taggctttgt ccccatccct ttcaagatgt gggcttataa cagtctggtt    300
cgctataaga aaggtttcgg acactggctc ttcaaccggt ttgccgccaa tcctcccgta    360
ttcatttcta cggtcaatcc ggaaatacgt gccaaagtag gcaccaacct gttgcacgac    420
tatggctact ttaatgggac ggtccgattc cagaccgtgc ccgacaagaa agacagcctg    480
aaggcaagta tacgctatac ggttgatatg aaagaccctt attacatcga tacggtttat    540
tacactcgtt tcaatccgcg tacgttgaga atcatggaga gaggacgcag aggatcgttg    600
ttgacccccg gtgaacagtt caacgtgagt gatctggatg cagagcgcag ccgtatcagt    660
actttattgc gtaatcgcgg gtatttctac tttcgtccgg actatatgaa gtatcaggcg    720
gatactctgt tgaatcccgg gcatgtcagt ctccggttga tacctgtacc gggacttccg    780
gatgcggccc agcgcccgta ttatgtcggt aagacatcgg tcttttttgta cggaaagggt    840
ggagaagtgc cgaacagtac actcgaatac cggggactcg atattcatta ttataagaag    900
atgcaggtgc gtccgaatat gctttaccgt tggttgaatt atcaggctta tgtccgcaat    960
gattctttgc gcaactctgc tcatagccgt ttatacagcc agtatcggca aacgcgtatc   1020
caggaacgcc tttcgcaact gagtattttc cgctatctcg atctgcaata tatccctcag   1080
gactctacgg caacttgtga cacgctgaac gtgcgtttgc aggctacgtt tgataaaccg   1140
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ttaaagggct cttacgaatg gcagaccgga cagaataaag gaagttcatt gatgaatagt   1320
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acccgtatca gtcgtcacag cctgacacct ctccgggtga ctttcaatgt gctgcaacac   1560
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aatcagttta ttccggcaat ggaatatacc tatacttttg ataacgcggc tttgcgcgga   1680
gtgcgtaatc ctatctggtg gcagactacg tttacttccg ccggtaacat aacttccggt   1740
atttatcgta ttttcggaaa gaagttcagc caaagagaca agaaactgtt cggtgttcct   1800
ttcgcacagt ttctgaaggt gaacagtgac ttccgttata cctggaagat cgataagaac   1860
cagtccatag ccagccgtgt ggctggagga attatctggg cgtatggcaa tacaaatacg   1920
gcaccttaca gcgagcagtt ctatatcgga ggtgccaata gtgtacgtgc ttttactgca   1980
cgcagtatcg gaccgggtgg attccggccg acaaagactt cgaaagggct ctatctggac   2040
cagacgggag atatccggat ggaagccaac gtggaatatc gtttccgcat ttacggtgac   2100
ttgcacggtg ctgtctttct ggatgccggt aacgtctgga tgttgcgtaa agatgaagag   2160
gcaccggaaa agcaactgcg ttggaagact ttcggcaaac agattgcgtt gggaacaggt   2220
gccggtatac gttacgacct cgacttcctg attctgcgtc tggattgtgg tgtgcctttg   2280
catgatccgt acgataccgg caagaaggga tattacaatg tgaccggttc tttctggaag   2340
gggttgggac tacactttgc cgtaggctat ccgttctaa              2379
```

<210> 2951
<211> 852
<212> DNA
<213> B.fragilis

<400> 2951

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ataaagttaa attatagtgt tgcggaatta aggctgaata tcgtggggaa ctatatcttg     60
attaacggta aacttggatt tcccgaactt ggattattgg gtgccggaat cagcacgttg    120
ttctcacgta ttgtcatggt gctggtattt gcattcgtgt tttttagcag ccgccgtttc    180
ttacgttata aactgggatt tattcgcttg ggatggtcgc gtacattgtt ccgtcagctg    240
aatgccttag gatggcctgt agcttttcaa atggggatgg aaaccgcttc atttagcttg    300
agcacagtga tggtaggatg gttggggact atcgcccttg cctcacatca ggtaatgctt    360
actatctcac agttcacgtt tatgatgttt tatgggatgg gggcggcagt agctgtgcgt    420
gtcagcaatt tcaagggtca aaacgatatt gttaatgtac gtcgtactgc gtatgccggg    480
gcacatatca tattggctat gggagttgtt ctgctgtcta ttgtcttctt gttccgctat    540
caggtaggag gatggtttac cgacaatacc gaagtctctg cgatggtagt tgttctgatg    600
gtgccttttc tggcttatca gttcggcgat ggaatgcaaa tcaatttcgc taatgccctg    660
cgtggtattt cggatgtaaa gcctatgatg ctgattgctt ttatcgccta ttttatcatt    720
tctctcccgg ccggatattt ctttggattt gttatgggct ggggattact cggggtctgg    780
atggcttttc ctttcggact gagtagtgcg gccattatgt tatggttacg tttcagatat    840
aaaacaagat aa                                    852
```

```
<210> 2952
<211> 1044
<212> DNA
<213> B.fragilis

<400> 2952
cgcattagaa atttattcat tatgggatta ttctctttta cacaagaaat agcaatggac      60
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gtggtggccc ttgaccgtcg gacagacaag atgattgctg taggtgaaaa ggccaagctg     180
atgcacgaaa agacgcacga gaatattcgt accatccgtc cgttgcgcga cggagtgatt     240
gccgacttct atgcttgcga gcagatgatg cgcggactga tcaaacaggt aaatactcgt     300
aaccgccttt tctctccatc gcttcgtatg gtgatcggag tgccttcggg tagtacggaa     360
gttgaacttc gtgctgtccg tgactctgcc gaacatgccg gcggacgtga tgtctatctg     420
gtatttgaac ctatggctgc ggctatcggt atcggtattg atgtagaagc accggaagga     480
aacatgattg ttgatatagg tggtggttct accgagattg ctgtaatttc attgggaggt     540
attgtttcga caactctat tcgtatagcg ggagatgatc tgactgccga tattcaggaa      600
tacatgagcc gtcagcataa cgtgaaagtc agtgagcgta tggccgaacg tattaagata     660
aatgtgggtg ctgctttgac cgaactgggt gaggatgctc ctgaagatta tatcgttcac     720
ggaccgaacc gtatcactgc acttccgatg gaagtgccgg tatgctacca ggaagtggca     780
cactgtcttg agaaatcaat ctcgaagata gaaacggcta ttctgagtgc gttagagaat     840
acacctcctg aactgtatgc cgatattgtg cataatggaa tttatttggc cggtggtgga     900
gcgctgcttc gtggcttgga caaacgtctg actgataaga taaatattcc tttccacatt     960
gcagaagacc cgttgcatgc agtagctaaa ggtacagggg ttgcattgaa gaatgtagac    1020
cgtttctcat cttgatgag ataa                                          1044

<210> 2953
<211> 213
<212> DNA
<213> B.fragilis

<400> 2953
gtaatcagaa aaacaattaa gaaaacaacc gtaaatacca accaacggga aaagtatttt      60
tcaaacgatg tagcaggagt catcagaaca gagagccgcc cggttttcga tttcatcctc     120
tccattgtga acgaagcact caagcaaccg aatacacaaa gcccccacat aaaaatcacc     180
agattgaact cccaggtact atctgtatct tga                                213

<210> 2954
<211> 2397
<212> DNA
<213> B.fragilis

<400> 2954
ttatatatga agaaactcct ttgcctgata atactccttt tctctttttat tcggtcggaa      60
gcccagtctg atcatatctg tcctcacgag aaactttatg tccatacgga tcgtgccaat     120
tatgagcgtg gtgatacggt ccgtttccgt gcttacctga tggatacccg ccacgaggca     180
acggcttaca gccgctacgt ttatgccgaa ctgctggctg acagtcaggt catctcccgt     240
gagatggtca aggatgatca cggtgtcttt tccggttacc tctctttggg cgatacactt     300
cgttccggca attatacgct tcgtttctat acccgttatc tttcttcttt gcccgctccc     360
cgttacttct atcgtcagat cattgtcggc gggcgtccct ttcaggatta ccgcaaggag     420
agcgtgactc gtatggcggc ttcctaccat gtctctttct ttccggaagg gggacgtctc     480
ccttcgggtt gtgtcagccg tgtcgctttc aaggctttga gtcccgatgg tttgggaaca     540
gatgtgcagg gctttgtggt caatcagcgt ggagataccg tcaccacgtt gcgttccgtc     600
catcggggga tgggcttctt caatcttgaa cctgtttcgg gtgacagcta tacggcggtg     660
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gtcagcctcc gtgtcgatgt ccgtaaggat gactttctgg tgcgtttgaa ttcaggtgtt     780
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cgttttgttt tgttggatgg ttcgggcgtt cctataagtg tcgtaccgc tttcaatcag      960
agttcttccg tgtgtgccga cgttgatttc tcggctcgct tgaaagaaga gaagggacgt    1020
```

```
tcgttttggg atgtcagctt ggggcttcgt gattcctcgg gtgagccgtt gggcggtacc   1080
ctttctgttt cggtcaccga cgaccgctat gcacttcagg ataccacggt gaatatcctt   1140
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tccggtgatg actcccgtac ctcgtatctg ttggacttgt tgatgctgac tcagggctgg   1260
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gcaggaggaa gttccactcc tcctccggct ctgttaatgg tagatgggct ggaaacttct   1980
tattccgaac ttgtcggcat ccctgtatcc atagttgaat ccatcgagtt ggtaaaagat   2040
gccgctcaga tggcatatat cggatctaaa gcatcgaatg gcgctatttt gattagtaca   2100
aaatcaggtt taggcactgt tggtaagaaa gcatccaatt ttaggataat tcgtcccata   2160
ggatatcagg tgaagcgtga gtcttattcg ccttcttatc cggttgttta tggtgcaata   2220
aataacggtg ggaatagttt cagaacaata tactggtcac cggatcttct gcttgataaa   2280
gcggcttctc atttggagtt cggtaatccg aaacagggtc gactgactct tgttgttcag   2340
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```

<210> 2955
<211> 1440
<212> DNA
<213> B.fragilis

<400> 2955
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attacaatga aacgatttca actgtttta gtaggagcat ttgtagcagc cggtccgctt      60
tttgcgcaat cggcagatgc tgattggcac agtgaggttg ccaaagtgaa agaacttatt     120
cagactaatc cggcgcaagc ttccgaggaa gccgcacaat tgctgaaagg taaaaataaa     180
aaaaatacgg atcttctgat tgccattgga caagcctatt tggaagccgg taaaattaat     240
gaggccgaag cctatgctgc tcttggacag aaagctaaca gcaaatctgc tgcggtttcg     300
gtgctgcaag gtgacattgc cgtagctaag aaagatgccg gaaaagcttg tcagttatat     360
gagcaggcta tctattttga tcctaattat aaagaagcct atctgaagtt cgctgacgta     420
tataaggggg ctagtccgca acttgctatc gagaagctgg aacaactgaa aaaccttgat     480
ccttcgtgcg tggctgccga taaaaaattg gcagaggttt attatctgaa taataaattt     540
gataaagcgg ccgaagctta tgcgcatttt atcaatacac cggaggctac ggaagatgat     600
ttgacgaaat actcttttgc gcttttttttg aaccatgatt ttgagaaatc acttcagata     660
gctttgatgg gtttacagaa gaatccgcgt gatgctgcat tcaatcgttt ggctatgtat     720
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gctaaaacag atttgtggcg tgaagtttct tcttcttatg aattgaataa tgaatttaca     960
aaggcaatag aggcctataa aaaatatagc gaatcgttga gtgccgacaa gcgtacccct    1020
gacgtacagt tccaaatagg aaagctttat tacgaaaagg gtacgcaatc ggatacgtta    1080
accgtttcgc tggatgagcg gaaggcggct cttgtttctg ccgattccat ttttactgag    1140
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gcgttagacc cggagaccac tcaagggttg gctaaacctt attatgaaga ggtggctgcc    1260
ttcttgattg ataaaaatga cccgaggtac aactcagctt tgattgagtg ttatagttac    1320
ttgggatatt attatctggt agctaacaaa cttcctgaat ctaaggagta ttggaataaa    1380
attctggcta tagaccccgc taatgctact gctaaacgtg cattggatgg catcaaatag    1440
```

<210> 2956
<211> 564
<212> DNA
<213> B.fragilis

<400> 2956

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ggtgcgtgtg attgcaagaa ctggtcagag agagcaaaaa gagttggaac aaaagagttt      60
ggcgcaatga ttatcaacta tatacataga gtaggatggt ttgtcggtct gatattactt     120
caggtgctga tcttgaataa tgtgcacata gccggtgtgg ctactccttt tctatacgtt     180
tattttatat taaaatttaa ctccggtact tcccgaaacg aattgatggt atggggtttc     240
tgtatggggc ttgccatcga tatcttttct aataccccgg gtatgaatgc ggcggcgaca     300
gtactactgg cttttctacg tccgttgttt cttcgcttgt ttacgcctcg agatactttg     360
gatagtatcg taccttcgct gaaaagtatg ggaattgctt cttttccttaa atatttggtg     420
gtaagtgtct ttgttcacca ttttatgtta ctgactcttg agttcttctc atttaccagc     480
ataccgttgt tgctgttaag ggtggtgtcg agcaccattt tgactataac ctgtattatg     540
gctgttgaag gagtgaggag atag                                            564
```

<210> 2957
<211> 309
<212> DNA
<213> B.fragilis

<400> 2957

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agagttagtt ttatagtagt agcaatgttt atgtttgttt gtgatggttt taacctagac      60
cttaacatga aattaaaaac agacaatcag aactttaaca agaaaataat tatgaaaaag     120
ttagttttag tagtagctat gtttatgttt gcttgtggat cgttctttac aatggcacag     180
gatccggtga aaaaagaccc aaagaaagag gtcaaagaca ctgcaaaaac tgagcctaag     240
aaagaagtag ccgacacaac cgctataacg gtcgcagcat caggagcatt tgcacagttt     300
gccgaataa                                                             309
```

<210> 2958
<211> 198
<212> DNA
<213> B.fragilis

<400> 2958

```
aactatacgg aatcgacctc taaagaacac caaggtgtgg aatatttcca cacccttttc      60
cacattttcc acaacattcc acactgcatc ccatttccat tcatttttta ctcacctaca     120
aatcaacaga ttagttcaca cgtattcttt ttggcacaag atttgggaaa tactcaatac     180
aagtgtttaa ccaaatga                                                   198
```

<210> 2959
<211> 1092
<212> DNA
<213> B.fragilis

<400> 2959

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aggagtgagg agataggtat ggcaaaagat tatgttttag agaaacggaa atatgtgatc      60
ggcggagtag cattggctat tgtcctgatt tatctgctgc gtctgttttc tctccagata     120
gctactgatg actataaaaa aaatgccgac agtaatgctt tcctgaataa gattcagtac     180
ccgtcacgtg gggcaatgta cgaccggaat gataaactgt tagtgtttaa tcagcctgcg     240
tatgatataa caatggtgcc gaaggaagtt gagaacctcg atacactcga cttgtgccag     300
acgctgaata tcactcgtgc acagtttctg aagataatga gcgatatgaa agatcgtcgc     360
aggaatcccg gttattcacg ctataccaat caggtattca tgtctcaact ttcggcagaa     420
gaatgtggcg tatttcagga gaagctattt aagtttcacg gattctatat ccagcgacgt     480
accattcgtc aatatagcta taactccgct gcccatgtgc ttggtgatat tggtgaagta     540
tcaatgaaag acatcgaaaa tgatgattac tacatccggg gagactatat cgggaaacag     600
ggtattgaaa aatcatatga atcttattta cggggtgaaa agggcgttga ggtattgttg     660
agggatgcgc atggacgtat acagggacat tatatggatg gaaagtatga taagcgtccg     720
atacccggaa agaacctgaa gctcggaatc gatatcgatc tccagatgtt gggagaacgc     780
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tgcatggttt cttcacccga ttttgatccg agactgatga ttggccgtca gcgcggaaag     900
aaccacttga tgctccagag agatccgatg aaaccttgtg t taaaccgttc gattatggga     960
```

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gtatatcctc cgggatcgac gtttaaaacg gcacaagcgc tgactttctt acaagaaggg      1020
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agcggtggtc ta                                                          1092
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<210> 2960
<211> 183
<212> DNA
<213> B.fragilis

<400> 2960
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gcgcatggtt tcagggacta tttcactctt ctattcgaag tgcttttcac ctttccttca       60
cagtactggt tcgctatcgg tctctcggga gtatttagcc ttaccggatg gtcccggctg      120
attcacgcag aattcctcgt gctccgcgct actcaggata ccactacgct tcggttacct      180
tag                                                                    183
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<210> 2961
<211> 873
<212> DNA
<213> B.fragilis

<400> 2961
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aaccactacc aacacagtgt ttatttcagt tcggccaatg tagttgccgg caaagtatat      180
gaagtatccg gtggaataac ttcttatttc catctgaagt cggtcaatga ggatttattg      240
gatcgcatca tggagttgga gcagcagaac cgcaatctgg agaatgcatt agtaaaacat      300
ctctctgact caaccgagct gaatagtatc cgaaacttgt cggatacaga ctatgaaatc      360
ttcaaagccc gggttatcaa taacagtctc aatctggtag ataactacat cactctgaat      420
cggggatcga aggatggcat ccgtcctgag atgggcgtgg tcgacggtaa tggggtggtc      480
ggcatcgtat atgaaacttc ttctcactat tcccgggtga tttcggtgtt gaacagcaaa      540
tccagcatta gttgtaaaat tgtgggtagt gagtatttcg gttacctgaa gtgggaatat      600
ggagatgccc ggtatgctta tttgaaagat ttgcctcgtc atgccgaatt caatttggga      660
gatacagttg tgaccagtgg ttattccacg gtttttcctg aaggtattat gattggtacg      720
gtagatgata tggccgattc gaatgatggc ctttcctatc tgttgaaggt aaaactggca      780
acggattttg gtaaggtgag tgaggtgcgt gtgattgcaa gaactggtca gagagagcaa      840
aaagagttgg aacaaaagag tttggcgcaa tga                                   873
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<210> 2962
<211> 2046
<212> DNA
<213> B.fragilis

<400> 2962
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gacacaactg ccctgccggg caccagtttt tatcagtatg cttgtggcgg atggatgaaa      180
aaccatcctc tgacagatga gtattcacgt ttcggttcat tcgatatgct cgccgaaaac      240
aaccgtcagc agttgcgtgg actgattgaa gggctggctg ccgaaaaaca tgaagccggc      300
agcattgcac agaaagtcgg tgaactttat aatatagcta tggacagcgt aaaactgaat      360
aaggaaggcg ctgcccccat taaacccgaa ctggagaaaa taggtgccat caaagataaa      420
gctgaaatct atccgttgat tgtagaaatg cagaagagag ggatgtatcc gtacttcatt      480
ctgtatgtca gtgctgatga catgaatagc aatgaaaata tggtgcatac catgcaaggt      540
ggcctgggca tgggcgaacg ggattattat ttggaggatg atgcgcagac gaaagaaatt      600
cgtgataaat accagcagca tgtaagtaag atgttccaac tggccggata tgatgaagct      660
actgcccgga aagctgtgaa agcagtgatg aatatcgaga ctcgcctggc ccagtcggca      720
cgttcgcaag tagaattgcg tgatccgcat gccaactata ataagaagac tttggaagaa      780
ttgcaaaaag agtatccttc ttttgcatgg gatgtatttt tctcaactgc cggactgaat      840
aacctgaaag aagttaatat tggtcagcct gatgcattga aggaggtgaa tgccatcatc      900
gatacggtat cactcgctga ccaaaaattat tgcttgcagt ggaatctgat caattcagct      960
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gccaactatc tgagtgacga ctttatagcc caagattttg atttctatgg ccgtaccatg    1020
tcgggtaaga aagagatgca acctcgttgg aagcgtgctg tcagcactgt tgatggttca    1080
ttgggcgagg ctgtcggaca gatgtatgta gagaagtatt tccctgctgc ggctaaggag    1140
cgtatggtag cgctggtcaa gaatttgcag gaatctttgg gagagcgcat caaggggctg    1200
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gctccgttga aaattgaaaa cggatttaca cccgaacagc gcttcttctt gtcttatgcc    1860
aatgtgtggg ccggaaacat ccgtcctgaa gaaatcctga agcgtacgaa gaccgatccg    1920
cattcgttgg gtaaatggcg tgtagatgga gcactgcctc aaatcggtgc atggtatgaa    1980
gctttcaata ttactgaaaa agatccgatg tacttgccgg tagataagcg ggtgtcaatt    2040
tggtaa                                                                2046
```

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<210> 2963
<211> 1269
<212> DNA
<213> B.fragilis

<400> 2963
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caggacacca gtacgcagat ggttgcgctc aatattctct ataatgtggg agccagagat    120
gaaaacccgg agcataccgg gtttgcccat cttttgagc acctgatgtt tggcggttct     180
gtgaatatac ccgattatga tgctccgtta caattggcag gaggggaaaa taatgcctgg    240
accaataatg acattaccaa ttattacctc actgtaccca gacagaatgt ggaaaccgga    300
ttttggcttg aatctgatag aatgttgagc ctcgatttca gtgaacgcag tctggaggtt    360
cagcggggag tggtaatgga agagtttaag cagcgttgcc ttaatcagcc ctatggtgat    420
gttgggcatt tgttgcgtcc gctggcttat cgggttcatc cttatcaatg gcctaccatc    480
ggtaaggagc tgtctcacat agccaatgct acattggaag aggtcaaaga tttctttttt    540
cgtttttatg cacctaataa tgctgttctg ctgttaccg gcaatatttc gtttgaagag     600
gctttacatc tcacagaaaa gtggttcggt cctatccccc gccgggaagt tcctttgagg    660
caattgcctc cggagccggt acaaacggaa gaacgccgtt tggtagtgga gagaaatgta    720
ccgcttgatt cgcttttat ggcgtaccat atgtgtgacc gcgcggatag cgattattat     780
gcttttgata tcttgtcgga tatcttaagt aacggacgtt ccagccgttt gaaccagcat    840
cttgtgcaag aaaagcaatt gttctcgagt atcgatgctt atatatcggg aacacttgat    900
gccggcttgt tccatatcag tgggaaaccg gcagccggtg tgtcgttgga agaagctgag    960
gctgcggtgc gtgaagagtt gaatgaactg caatctgctt tgatccaaga acaggaactc    1020
gagaaggtaa agaataagtt tgaatctacc cagatattcg gaaatatcaa ttatctgaat    1080
gttgccacca atcttgcctg gttcgaattg aacgggcggg ctgaagatat ggaaaaggag    1140
gttgaacgct atcgtgccgt gactgccgac cgtttgaacg cggtggcaca aactgcattc    1200
cgagaagaaa atggagtagt actttattat aagagtagta gaggagagaa ggatgagact    1260
tatatataa                                                             1269
```

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<210> 2964
<211> 258
<212> DNA
<213> B.fragilis

<400> 2964
cattatcacc gccatagcac catacatcaa cgcaacacga agcagattgg acttccaatt    60
ctccaccatc tctttacggc aaagattcac aaaacgcgtt tgactgaaaa aagtatctcg    120
tatcataatt ctatttgttt agagtggaac aatgcagaaa tcctttcggg aactgccaag    180
gtagcattaa ataataattc caggttaatc tctgaatctt cgcccgattc attaggcaaa    240
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agcaaaaaat taccttga   258

<210> 2965
<211> 759
<212> DNA
<213> B.fragilis

<400> 2965
tttaaattta gtatgggatt attagatgga aaaacagcca ttgtgaccgg tgcggctcgt   60
ggtattggta aagctattgc tttgaaattt gcttctgaag gagcaaatat tgcatttaca   120
gatcttgtta tcgatgagaa tgcacagaat acagcaaaag aaatcgaagc aatgggtgtg   180
aaagccaaag gatatgcgtc gaatgctgcc aattttgaag atactgcaaa agtagtggaa   240
gagattcata aagatttcgg ccgtatcgat attctggtaa acaatgcagg tatcactcgt   300
gacggattga tgatgcgtat gagcgaacag cagtgggata tggttattaa tgtgaacctg   360
aaatctgctt ttaactttgt gcatgcgtgt actccgatca tgatgcgcca gaaagccgga   420
agcattatta atatggcttc tgtagtgggt gttcacggta atgccggaca agctaactat   480
tcagcttcaa aagcaggtat gattggtttg gctaaatcta tcgctcagga gcttggctct   540
cgtggtatcc gtgccaatgc cattgctccg ggattcatca ttactgacat gacagccggc   600
ctttcggaag aagtgaaaac agaatgggct aagaagattc cattgcgtcg tggcggtact   660
cctgaagatg tggctaacat cgctactttc cttgcttctg atatgtcttc ttatgtatca   720
ggtcaggtga ttcaggtaga tggtggtatg aatatgtaa   759

<210> 2966
<211> 267
<212> DNA
<213> B.fragilis

<400> 2966
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cctggggctg gagaaggtcc caagggttgg gctgttcgcc cattaaagtg gcacgcgagc   120
tgggttcaga acgtcgtgag acagttcggt ctctatctat cgtgggcgta tgaaatttgc   180
gtggctctga cactagtacg agaggaccgt gttggactga cctctggttt accggttgtg   240
ccgccaggtg cattgccggg tatctaa   267

<210> 2967
<211> 1389
<212> DNA
<213> B.fragilis

<400> 2967
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ttgaagttga aagctatgaa gaattttcga gtggcaatac ggaggtctta tttatcggtc   120
atccttttgc tttttggcatt ggtatgctat cttttgtatc ctttggaaat accggctctt   180
tcttcagaat cggctataga aattgatcgg tatgttcatt ccgtgccatg tactgtacag   240
atgccggata ccgctactga tttcttgtgc ttcttggatg aagagttaaa aaacaagcaa   300
atcttattgt taggtgagca gttgcatcag gatggagcca ccttgcaaat gaaaaccagg   360
atggttcgtt atttacacga gaaattagga tataatgtta tactatatga aactggctta   420
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tggacatttt ggtgggggag taatgagaca aaatcattat gggaatatta tcgctcccat   540
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tatgtgcaac gcttcttctt gcagatgagt gagtttaatg gaaactggaa ttatttcgga   720
taccggcttg ataggatgtt aaaagactcc attgttcagg attttaataa attggaaaat   780
agaattcatg aggagtcaag atattctatg gaagatggtt tgcatcagcg ttatattgca   840
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atgaacctac gcgattctat tatggccgat aatttgactt ggttggtaga ctcggtttat   960
aaagaccaaa aagtgattgt atggtgcgct aatgtgcatg tattcaaccg ggggaggatg   1020
caggttgact cgaccagatt cacctctatg ggacaaaggt taaaaataca ttttggagac   1080
cggatgtata caatagcatt tacttcgtat gcacgaagaa acactgacgg cggcatacgg   1140

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gatccgctta gtacgttgtc actcgagtat ttgctacatc ggagaaaagt cgggtttgct      1200
tatttaaatt tcaatgaact acccgtggat agcagatgga gacaagcgtt tatctcgggt      1260
ttggatcaag gtgcaagtct ttcggaagtt tggagcgaac aaatggatat gctattctat      1320
atcgacctga attatgatgt atattacgat aaaactttta taaataaaat gtataaatgg      1380
gcaaaatag                                                             1389
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<210> 2968
<211> 603
<212> DNA
<213> B.fragilis

<400> 2968

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aaagcattgt ttcttctcgg ccttcccatt gttatcgggc aagtgggggt tattgtgctt      120
ggctttgccg ataccttaat gattggtcat cacagcacca acgaactggg agcagcctcc      180
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tattatctga tactacttgc ctcgctggtc tttgtgttgc tatttaacgg attcaaacag      480
tttaccgatg gaataaccga tactaagaca gctatgtgga tacttttggg tggaaatgta      540
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tag                                                                   603
```

<210> 2969
<211> 732
<212> DNA
<213> B.fragilis

<400> 2969

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ttcggtatga ccgtcatata cgaagacaat catattatag tagttaacaa gaccgcttcc      120
gaaatcgttc agggagacaa aacgggtgat actcctcttt cagaaactgt caagcaatat      180
ctgaaagata aatatcagaa acccggaaat gtttttatcg gtgtaaccca tcggctggac      240
cgccccgtga gcggtcttgt tatttttgcg aagaccagta aggctctttc ccgcttgaat      300
gagatgttta agaacagtga agtgaaaaag acctattggg ccatcgtgaa gaattgtccg      360
aagcaacccg aaggagaatt ggttcactat ctggtgcgta acgagaagca gaataaaagc      420
tacgcttatg ataaggaggt tcccaacagt aaaaaggcga ttctgaacta taaacttatc      480
ggacattcgg atcattactt tctactcgaa gttgatctga agaccggacg tcatcatcag      540
attcgttgcc agttggcaaa gatgggatgt cccatcaaag gtgatttgaa atatggttct      600
gcacgttcca atccggatgg aagtatttgt ttgcatgccc ggcatgtgcg ttttgttcat      660
ccggtgtcta aagaattgat tgaactcgat gctcctgtac cggatagtaa cttatggcat      720
ggatttcaat ga                                                         732
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<210> 2970
<211> 2304
<212> DNA
<213> B.fragilis

<400> 2970

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acggacgatg tacagagttt gcagacggat agtttgctgc ttttactgaa agagaaagat      180
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catcgtatca tcaccaagcg tgactctgtg attacgaaac gaaagaaaaa gggttttttc      360
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gcccgtcttc gccggatgaa taaggaatta accactcgta ttgacagcat gattacgacc    600
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gaaatgatac aaaaggcgaa tgaagctctt cggcaggtag atatcgtaat ggctgaggca   2280
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<210> 2971
<211> 960
<212> DNA
<213> B.fragilis

<400> 2971
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ctatctgctt gtagctcgaa acccaaagac ggactgacag acacttatac atcgggtgta    120
atagctatta ctgctgacga aagtttccaa cccattgttc aggaggaaat tgatgtgttc    180
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aaccagctcc tgaaggacag tgtacgtttg gctatcacca cgcgtacact gactccggag    300
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gcactgccct ggggattcgc ttcttttctc acatctgaca gagggcagcg gattatatta    900
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<210> 2972
<211> 618
<212> DNA
<213> B.fragilis
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<400> 2972

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aagaaagagc cggtacaagt gacaacaccc gcttcggttt cggaaattaa aattcccgag     180
aaaaatattc ttcagatatt ggtcgatccg aacggaaaga tatttatgag tatggacaag     240
cagtccgacc tgaaagcggt attggagagc atgggacagg aatatggtgt cacatttact     300
ccggaacagg aaaagaaatt catgttggcc tctactttcg gagtgccgat gaaaaacatg     360
aaaacctatc tcgacctgcc gaccgacaaa caggacgcag tactgaagaa cgaaggtatt     420
ccttgtgata gtcttgataa ccaattcaaa tcatgggtgc gtaatgcacg cgcggtgaat     480
gctgatttac gtattgcaat caaggccgat gcggatactc cttattctgt gattaaaaat     540
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acgacttctg aaaactaa                                                    618
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<210> 2973
<211> 825
<212> DNA
<213> B.fragilis

<400> 2973

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gtggcaatgg tcattgtgtt gataatagct ttagtaggtt ttagtcttcc gaccttaatc     180
aaaatggcta ctccgaagca aaaagaggta atgacggaag ttaccacttt gtcgcaattg     240
gaggaaccgg aagtgaagca ggaagagatg aaaagagtag agccggtggc accaccaccg     300
cctgctttga agagctctat taaatttacc gctccggtga tcaagaaaga cgaagaggta     360
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attgccgacg tgaagggtaa cgatgaagca aacggtaagg atattgccga tttgaagcag     480
gtggttactc aggcagagcc ggccgaagaa caagttttcg atatggtaga acagatgccc     540
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cccattgcgg ctgaaaacgg tacacaggga aaagtgatct gtcgttttgt gattggtaag     660
gatggccaag tgagggatgt aaccatcgcg cgttcgttgg atccatattg cgacaaggaa     720
gccattcgtg ttatcaaatc aatgcctaag tggattcccg gaaaacagaa cggtaaagcc     780
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```

<210> 2974
<211> 903
<212> DNA
<213> B.fragilis

<400> 2974

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ggaaagacaa ctacgattca agtattactt ggcttagctc gtcctgttaa aggtgaggta     180
ttatatgatg gacagccatt tcgagatcag agagaaaaac aattaaggaa gataggctta     240
tgcccgggag aaccattcta ttatgataat cttacggggt atgaacacct tgcgtattta     300
gaccatattt atcattgtgg aaggaccgct atcaataaag tattggcaat cacgggaatt     360
gagaatgcca gaaacaagaa gcttcgacac tattccacgg gtatgataca tcgattggga     420
atggctatgg ctttattgca tgatccggat atactgtttc tggacgaacc gctcaatgga     480
cttgatccgg aggggataca ttctataaga gagttacttt tacagctgca tcaagagggt     540
aagaccgttt ttttatccag tcatttactt gatgaagtag aaaaaacttg tacccatgtt     600
ggtatccttc agcatggctg tttattgtat caaggagatt tatcggaatt actaaacagt     660
atagagaaaa gaatccatat caggttggac aaggtggatt tgttacattc ggtatgtaaa     720
gaggtccaaa ttgacagccg gatcaagtcg gagtcaatat ggaagttat cctttccaat     780
gatactacct atgacaggct tattgagcta ctggggcagg cggttatca tatatctgct     840
attcaacctt tggagaatac tttggaatcg gtttatttaa aattaacttc acaaacaaaa     900
tga                                                                    903
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<210> 2975
<211> 828

<212> DNA
<213> B.fragilis

<400> 2975
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gctatggcgg tgataatgtt atggagcgga tatttaagtt accgggcagt aggtcaagat     180
acagatagta cctgggagtt caatctggtg attttttatgt gggggctttg tgtattcggt     240
tgcttgagtg cttcgttcac aatggagagg atgaaatcga aaaccgggcg gctctctgtt     300
ctgatgactc ctgctacatc gtttgaaaaa tacttttccc gttggttggt atttacggtt     360
gttttcttaa ttgttttttct gattacttat aaactggcgg attatacaaa agtattggta     420
tactctttgg tttatccgga aaataacgca attgcgatta ctccgttatc tcatctgttt     480
ggtgaaaata cggattatta tacagtattc aagcataccc atacatttgt attaatgatt     540
gcaagctatt cttctgtca gtcttgcttt gtactgggca gttctgtctg gcctaagaat     600
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gtcggatttg ccaagttgat atggccggat caaataagtt acaatccgga tatgagcgag     720
gagactgctt ttgcttgtct ttcggcaata gctgttcttt tcactctgac taactggaca     780
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<210> 2976
<211> 861
<212> DNA
<213> B.fragilis

<400> 2976
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ggtgcaggca aatctacact actctatctg atgagtgggc tgctcactcc taaaagtgga     180
aaagtggtct atcatgatgt tgacgtacgc cgccggcttc ccatcacttt gcaggatatg     240
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aacagtccgt tttatccccg tttcagcaaa gaggatatgg tgaaatatct gcactatttt     360
gaaatggata tcaatattga tctgggggca ctctctatgg ggcagaagaa aaaagtattc     420
atgagctttg cgctagccac taatacatct ttgttgttga tggacgaacc gaccaatgga     480
cttgatattc ctggtaaaag tcagttccgg aagtttattg cttcgggtat gacagatgat     540
aaaacgatct tgatttctac ccatcaggtg cgtgacattg ataaggtgct cgatcatgtg     600
ttgattatgg acaatagtcg ggtattgctg aatgaatcta ctatgagtat ttgcgataaa     660
ctgtttttta ctgaaagcga aaaccgggag ttgttacagt cgtctttgtt ttccactccc     720
tctattcaag gtaattttttt gcttttgcct aatgaatcgg gcgaagattc agagattaac     780
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tctaaacaaa tagaattatg a                                              861
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<210> 2977
<211> 1962
<212> DNA
<213> B.fragilis

<400> 2977
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gggaaatcaa ctatgttgaa gatcttggcc ggattgcaaa gtcctacacg aggtgttata     180
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cgtccgacca gtgagttttc cggaggatgg cgtatgagaa tcgaactggc caaacttctg     540
ctcaggaaac cggatgtgct gcttcttgac gagccgacca accatttgga catcgagagt     600
atccaatggc tggagacttt cctctctacc cgtgccaatg cagtggtgct ggtcagccat     660
gaccgggcct tttttaaacaa tgtaaccact cgtaccatcg aaattacttg tgggcagata     720
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tcgctatatg aacaacacca aaaactgaaa cagcaacttg accatacggt ggaagagtgg   1920
gagcgcgttt cgatggagtt ggaagagatg aatgaaaaat aa                       1962
```

<210> 2978
<211> 600
<212> DNA
<213> B.fragilis

<400> 2978

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gaactggata ttctgtcgga tatgatgaag cgtgtggcag ataaagatat ctctcctgat    240
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aatggaaccc ttcgtgctaa ttttttttaga gatatttggc gtgtggaaaa agttcggaag    360
cgctttgatg caaaagaaat gcaactgttt aaaagcgtgc tgaaggaagg acaggacaaa    420
ggagtgtttc atgtagatga tgtggaaatg actgctgcat tggtacacta ttgcgtaaaa    480
ggtatcgaag tgccttatat ccggggacat ataggagcta atctggatat ggaaacccga    540
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<210> 2979
<211> 498
<212> DNA
<213> B.fragilis

<400> 2979

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aatgcattga atattacgga atgctctcat aagtcggtta attcctgcca ggtttccgca    180
tcttctctgg atactaacta ttcttatcgc tatggcagtg atatcaccgg ttttgataaa    240
tcacaaactc tatctgtctc tgatgttgaa ttgggtttta aacctgtttc tgaaacatac    300
tcttctaata acctccgtct gcgcagaatt cttgaagatt ctgacctttt caaagacacc    360
atgcgtaagt ggtgcctggt aagagagaat ttgttggtat tagaccaaag taagtcttat    420
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agacgtattc ttatttaa                                                   498
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<210> 2980
<211> 4557
<212> DNA
<213> B.fragilis

<400> 2980

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agaaaggagg ctgctgctta tgcttccgaa gcaaccggca tgcagatcaa tgtacgtcgc   180
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<210> 2981
<211> 228
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (58),(74)
<223> Identity of nucleotide sequences at the above locations are unknown.

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tttcaaaaag cgggtgcaaa gggaaaaggg gttaatttta aacctgccaa agtttttggg    180
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<210> 2982
<211> 906
<212> DNA
<213> B.fragilis

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actcctgagc aaataaaagc ttatacaacc gtcggaggta ctccgcatct ggatggtgaa    780
tatactgttt ttggcgaagt tgtcgagggc atggacattg ttgacaaaat ccagcaggta    840
aaaacagacc gcagcgatcg cccggaagag gatgtgaaga ttattaatgt ttctgttatt    900
gaataa                                                              906
```

<210> 2983
<211> 387
<212> DNA
<213> B.fragilis

<400> 2983
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actctatcat taaaacactc tcaatcggtt tttgttttaa ctaaaagatt ctttctttta    60
tataaaagat taatcaagtt aaaaaaaagt atattggaaa aggttctttt aacttcgcct   120
cctataaaac aaattattca aagcagtgaa acttcctata taaaacccat tcattcgctt   180
gaatcgcctc ttttgcaagg ctccgtgccc ccaagggatg ccgagatacc cacctcttcc   240
aataaccgtt atataggaca agaaaaggct atcggatttc ccatagccat ctccattaag   300
aaagtgttat ccggaggggc gctccctttc ctccgccccc tgtataaaac aagtcatccc   360
ctccggtctt tcgaccgaag gggatga                                       387
```

<210> 2984
<211> 1002
<212> DNA
<213> B.fragilis

<400> 2984
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gaaaattctt catacttcgt tcttcattct tcattctatt ttgtactttt gcaacgatat    60
ctgatgagac acatcactaa cctttaata ttcacagtta tgaaaccaac attatttgtg   120
cttgctgccg gcatgggcag ccgttacgga ggcttgaaac aattggacgg actgggtccc   180
aacggcgaaa ctatcatgga ctattctatt tacgacgcca ttcgtggtgg atttggtaaa   240
gtagtattcg ttatccgtaa agattttgag caggatttcc gtgaaaagat tctgagtaaa   300
tacgaaaatc atattccggt ggaactcgta ttccaggcat tggacaactt gccccgaaggc   360
ttcacttgcc ctgccgaccg cgtaaaaccc tggggaacca accatgctgt cctgatgggt   420
aaagacgtca tcaaagaacc gtttgccgtt atcaatgctg acgacttcta cggacgcgac   480
agctttgctg tattgggtgc cgaactgtct cagatggacg gtaaaaagaa cgactattgt   540
atggtaggtt accgtgtagg caatacgctt tcagaaagcg gatctgtggc tcgtggcgtt   600
tgtgagacaa atgcggaagg ctatctgact acagtggtag aacgcactgc aatcgagcgt   660
atcgatggta aagtatcgtt caaggatgag aacggcgaaa tgcagacaat cggcgataac   720
actccggttt caatgaatat gtggggattc actcccgact atttcgctta ttcggaagag   780
tatttcaaag agttcctgaa agaaaacgaa ggaaacctga aatcagaata cttcattccg   840
ctgatggtaa acaaactggt gaacgaaggt actgcccgcg taaaggttct ggatactaca   900
agcaaatggt tcggcgtgac ttatgctgcc gaccgtcagg gtgtagtaga taagattcag   960
gcattggtag atgcaggcga atatcctgat aaactgttct aa                      1002
```

<210> 2985
<211> 771
<212> DNA
<213> B.fragilis

<400> 2985
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caaatcatga aaacagaact caaaggctgg cttgcggaca ataccgtgac caccgacaac    60
aaagaagaca aaatcctggt attagaaagc gccggaaacc tgacgctgtc cgatgtactg   120
gatgaaatga agaaagaaga taccggcttg cgggcagaga ctttaaagca tgccgtcgac   180
ctctttcagc gtacagtatc ggaattggta ctgaacggat actctgtcaa tacggggcta   240
ttccgtgccg taccacagtt tcgcggggta atagacggcg gagtatggaa ttccgagaaa   300
aattctatct atgtttcctt caatcaggat aaggatttac gtgaaactat cgcacggacc   360
ggagtaaaga ttctgggagc caaaggtgac tcggcctact catcggtgg tgaagacgcc   420
gccacccgtg ctacggacgg tagtgcaact gcgggacgta actatcgtct gcaaggaaag   480
aatattaaag taactggtac agatcctgcc gtaggtatcg tcttgattga tgaaaaaggc   540
acggaaacga agctaccgat ggatatgata gcagtaaaca acccttcgga agtattggtg   600
ctacttcctg ccgacttgaa agacggaatc tatgagctgc gactgactac acaatactgc   660
cacagttcgc agacaatgct aaaaacgccg agaactgtca gtcgatttat caatatcggc   720
gcatcccagg ggagtggtga tgacgatatt gtagatgatc caacggcctg a            771
```

<210> 2986

<211> 2181
<212> DNA
<213> B.fragilis

<400> 2986
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agactaaaat ggcattataa cagtgcttat gacgctgtca acaggttagc tacttttgcc      60
gacatcgatc tggtctatgc ccacaacgac gtgatggcgc ttgctgcccg ggacgtcatc     120
atgaagcgtg attccgtgtc cggcaaacgt atccggttta taggtatcga cggggtatat     180
ggtgacggtg ccggattgca agccgtagcc gatgagaagt tggaagcctc gttccagtac     240
cctaccggag gtgctatttc cattcaggtg gccatgcaga ttattaatgg agaaaaggtg     300
aagaaaaact atgtattgaa cactgccatt atcaatcggg ggaatgcgaa gaccattttg     360
gcacagtccg aacaactcaa ccactaccag aaaagaatca accggcagaa gcaggaagaa     420
gataatttat tgtctcgttt caagttcctg cgcaactcta ctatcctgat tttggcattg     480
atgttgctca ttatcccttt gctgggatat gtaatgtaca tgaacctccg ggttaaaaat     540
aagaataaag aactgcatga taaaaatcag cttgtagaag ctcaaaaaga agaactggct     600
gtcaagaata gccagattga gaatatctcc aaccagaaac tacaattttt taccaatatc     660
tcccatgaaa tccgtactcc tcttacactg atacttggac cggtcaataa attgataaag     720
aactccaagc tcgatccttc tattcaagaa gacgtggctt tgatgaaacg gaatgtagac     780
cggctctaca ggattgtcaa ccagatactc gatttccgaa gaatcgacaa cgataagatg     840
aaattgattt tgcgtcaggt agatttgatc ggtatggtaa gggaagtttt cgactacttt     900
accggtattg ccgaagagaa gcagattcat taccggttct ctaccaatat tgacgaactg     960
aacatttaca tagatgtcaa taagatagag caggtgttgg taaatatcat ttcgaatgcc    1020
tttaaatatt cggatagtgg gggagatatt tctgtccgga ttaccggtga agcggaaact    1080
gtcctgctgg aagtggagga tcacgggcgg ggaatttcaa aagagagtat ggaacacctg    1140
tttgaacgct tctataccgg taataagact ttcggtacag taggctttgg cattggactc    1200
aatctttcaa aagagtatgt cgacctgcat gacggtgaaa tccgtgcaga gagtcaaccc    1260
ggagagtata ctttattcag cgtccggctt tataaagata tcgctcacta tacacacgag    1320
tatatactgg aagagaccga tcgcttcaat ctcagttatc acgatatgga ggtggatacg    1380
acggtggtca acgaaatgct ttctaaaacc tatgattacc acgtcctggt cgtggaagac    1440
gatcccgatg tacgatatag cttacggaaa gagctgtccg ccaatttca ggtagaagtg    1500
gcaggtaatg gtaatgaagc attggacttg ttgggacagg gtgatgcttt tcacctgatt    1560
ctgagcgatg tattaatgcc cggtatgaat gggttccagc tggttaaccg ggtgaagaat    1620
gatcttgctt tcagccatat ccccatcata ctgctgacag ccttgtccga agacagccag    1680
cgcatctacg gcattgctga gggggcagac gagtatattc ccaaaccttt caacatcgac    1740
ttcctgaaaa tacgtatcat caacatgatt tcggaacggc agaagatgaa ggaagcttat    1800
atgaagaatc tccgggccgg tacgatggac aatgtggagg tatgcaaact gatgaaggta    1860
gacgagttgt tcagggacaa gctgctgagc attgtcgaca cgcaatatga aaactccgat    1920
ttcagcatcg aagacctgag tgaacatttg ggattgtcga gggtgcacct ataccggaag    1980
atgaaaacac tgttcggggt ttcccccacc gattacctga ggaattaccg gctcaataaa    2040
gcaatgcttt tgcttaaagc ccggcagtac aatatcagtg agatagctta tatgaccggt    2100
tttacttcgc ccgcctattt cactaaatgt ttccgtacac tttatggggt cactccgaca    2160
gaggcaatgg tggctaactg a                                              2181
```

<210> 2987
<211> 1611
<212> DNA
<213> B.fragilis

<400> 2987
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tatatgaata gaacttttat tatgcgagag tgtctcggta aagccttatg gctgtgtttt      60
tgcctttcga tagcaggatg tgccgaagat gacagaatga ctcccctgtc tgctgacagc     120
ggggatactg ccgacgagtt aatccccatc catatcagtc tgacaggtga caacgactat     180
cattcttcct cttttaacaa cgcttcgacc cgtagccact ctccctgat cgccgaatgg     240
gtggggggtaa aagctttctc acctacacgc acaggagagc aaccggacta tgacggtcca     300
cggatagcct cgatggaact gacggaagat accctgcccc gtgtaagtac ccgtgcaaca     360
gtgcctgcgg gagtctattt ccggctgatt gtttttcgga agtccggaaa taactatgtc     420
ttccagtcgg ttgccgatta cgcctccaat ggtacgggca ctcctgtact caaacaaggg     480
aaattgctga cacgctcggg aacgatacgt atggtgggtt actcctttaa taccgctacc     540
gctgccgact tgggaactat gctttccacg tatgcctaca acagcagcac agtgtctatc     600
```

```
cctaacatga gcaaggactt catgaccttc gattccggag atataacgaa tgtaaatagc    660
ctcagccaca atcttccggt gagtttcaat cagaagttgt gcaaactgac aattaccatc    720
agtcctaccg gatttccaag caatacgatc accaattgca cgggtgtata tgtaaagcaa    780
gggggaaact ccacatcatg gaagatcggc ccttcgacca atgtggtggc caccaacacg    840
aataatacgg cggcattcag tccgagcacg gccctaagta caaccatacg catggttccg    900
tttgcagggg ccagaacgat aacagtgcat ttcaatacac tgacggtagg cggacggatt    960
gtgaacaaca acaccgaaat cacgtccacc caaagcgtac agttgaagga agggaaaagc   1020
tatacactaa aaatacagtt taaaaaggga cccggcatca atgtgttgga gagtgatata   1080
aaccttacag gtaacgggtg tacggctcag gataagaagg atctggctaa attaatatgg   1140
gcggacggga atctgaaatc aacaggaaat tctaactatg tgtggaccac ttcaacagat   1200
agaggttatt actatacttg gtatagtact tacacaggaa atacaagcca aaataatacc   1260
gatccatgtt cgaaacttaa cgtttcaact tatggaaccg ggtggcgtac accgtcgcga   1320
aacgaactaa ccaagttatc tcggtgtaca aataaggcaa aagtaaataa tggaatgtgg   1380
tttatgaata gttccaaggg gctctttctg ccattagctg gacatacacc tagtgcatct   1440
ggagccagta ctggtggtaa tgcagtagtg aacggtaatc gcgatggtaa ttattggtgt   1500
acagagaaat attatcgttt tttgtttgga acaaatggac acacagtttc cgacgcagct   1560
tctggtgcct ttggatgttc tgttcgttgc gtaaaaggta ccaaacaata a           1611
```

<210> 2988
<211> 222
<212> DNA
<213> B.fragilis

<400> 2988

```
gtttgtgtat tacaatcaga tatgacggtc ttgaatacac aatggtgttt caaaaaacgt     60
acgtctgatg caacaaagat aaggcgcttt ttccatctgt gcaaattttt ctacatcgtt    120
ttaattatca gtcatttatc tatcctcctt gcatttagtg cggagagtaa aaatagtgtt    180
tcaaaagacg tacgtctttt gaaacatcgt ttgaaaaact aa                       222
```

<210> 2989
<211> 330
<212> DNA
<213> B.fragilis

<400> 2989

```
ctttccctt ccttcaactg tacgctttgg gtggacgtga tttcggtgtt gttgttcaca     60
atccgtccgc ctaccgtcag tgtattgaaa tgcactgtta tcgttctggc ccctgcaaac    120
ggaaccatgc gtatggttgt acttagggcc gtgctcggac tgaatgccgc cgtattattc    180
gtgttggtgg ccaccacatt ggtcgaaggg ccgatcttcc atgatgtgga gtttccccct    240
tgctttacat atacacccgt gcaattggtg atcgtattgc ttggaaatcc ggtaggactg    300
atggtaattg tcagtttgca caacttctga                                     330
```

<210> 2990
<211> 375
<212> DNA
<213> B.fragilis

<400> 2990

```
cccactttat ccactaccca aataacaact cttatgctta cacaattttt aaatctactt     60
gctactatca tcagcgtcat cagtttgctg atcgtaactt atggcgcgct tattgccatt    120
atttctttca ttatcaatga actgaagaga gtaaccggag cttacacccc gaccaatatc    180
cgaaagttga gagccgtgtt cggcacttac ctgctattgg ggctggagtt ccttatcgct    240
tcggacatat tgaaaacggt attggaacct acaatgaacg aactgattat tctgggaggt    300
attgtcgttg taagaaccat attatcggta ttcctcaaca aagaaatcaa agaattggaa    360
acagaaaata actaa                                                     375
```

<210> 2991
<211> 1296
<212> DNA

<213> B.fragilis

<400> 2991

```
tatgacatgg caaaaataca aattaaatct gagaaactca cacctttttgg aggaattttt    60
tcaatcatgg agaaatttga ctccatgctt tcacccgtta tcgactcaac actgggtcag   120
agatgcagca gtatcttcgg atatcagttc agcgagatag tccgttcgct gatgagcgtt   180
tatttctgtg gcggctcatg cgtggaagat gtaacgtcac aactgatgcg ccatctctcg   240
tatcatccta cccttcgtac atgcagctct gataccatcc tcagagccat caaggaactg   300
acacaggaaa acatctccta tacttccgac caaggcaaga cctatgattt caatactgca   360
gacaaactca acacattgct tataaacgct ttggtttcta caggcgagtt gaaggaaatt   420
gaggaatacg atgttgactt tgaccatcag ttccttgaaa cggagaagta tgatgcaaaa   480
ccgacctaca aaaagttcct cggctacagg cctggcgtat atgttatcgg tgacaagata   540
gtctatatcg agaacagcga tggtaacacg aatgtgcgtt ttcatcaggc agacacccat   600
aagagattct tcgctcttct ggaatcccag aacatccgtg taaatcgctt cagggcagac   660
tgcggttcct gctcgaagga aatcgtcagt gagatagaga agcattgcaa acatttctac   720
atccgtgcca accgatgcag ttcgctctac aatgacatct ttgctctgag aggatggaag   780
acggaggaga ttaacggcat ccagttcgaa ctcaattcca ttctcgttga gaaatgggaa   840
ggcaagtgct atcgtcttgt catccagaga caaagacgca acagtggcga ccttgacctg   900
tgggaaggcg aatacactta ccgttgtatt ctgaccaacg attacaagtc atcgacaagg   960
gacattgttg aattctacaa tctgcgtggc ggcaaggaac gtatctttga cgacatgaac  1020
aacggattcg gttggagcag gctccccaag tcattcatgg cggagaatac tgtctttctt  1080
ctgcttactg cattgataca caatttctac aagaccatca tgagcaggct tgacaccaag  1140
gctttttgggc tcaagaaaac gagtcgcata aaggcttttg tcttcagatt catctccgta  1200
cctgccaagt ggatcatgac tgcaaggcaa tacgtgctga atatctacac agagaaccga  1260
gcttatgcaa aaccccttcaa aacagaattc ggataa                            1296
```

<210> 2992
<211> 231
<212> DNA
<213> B.fragilis

<400> 2992

```
aatgtagaac atatggcaaa agtaattaac agagatgtac ctatcgcaga agagaatacc    60
actcttaccg gccagccggc aacaaatatg tatgacgact ggagtgaaga gatggaagac   120
cgtgcagaca atgtgtatga tgataccaaa aagaaatctg ccggcaacaa aaagtcaaag   180
gagaagaagc tcaaggagat agatgaagta gtaaaagagg atcttgagta a             231
```

<210> 2993
<211> 2064
<212> DNA
<213> B.fragilis

<400> 2993

```
catcacaagc acataaataa tagtgtttca acaagttggc tttttggcat acttcttgaa    60
acactatttg taaaaacaag aacccgaatg atacgacatt attttaaaat cgctttccgc   120
aatctgctga aatataaaac ccaaagtatt atcagcatta tcggactagc tgtaggaatc   180
acctgctttg cccttgctac actatggata cgctacgaga tgacatacga cacctttcat   240
cggagagccg acgacatcta cctggtaaga gcacaactca caatcacaga cggcacgctc   300
agcaactcaa tgccttatcc ggctatagag tatctacgga agaacatatc tgagattgaa   360
gatatatgtg gcatatctcc gttcaaaacc aatcttcgat tcaaagacaa gggtgggggat   420
ttattggcca ttgaggtgga ctctgcgttt atacgcatgt ttgatgtgcg tatcctgcaa   480
ggcaatgtca attttctaaa gaaaaagagc aacgagatag ccataaccga agcggtagcg   540
aaagaatggt tcggcaacga aagtcctctt ggaaaagaga ttgagttggg aagccggcca   600
tgtaaagtgt gtgccgttgt cagcggatgg tcgcaacatt caaatctttc atacggggcc   660
ttgcttccgg cacgccacca tccaagctgg caaagcaatt cagaacagat atttgtccgc   720
atcttgccgg ataccgacaa atcagctctt caaaaaagga taagcagcct cgatgcttcc   780
tcacaggaga aagagagtac attaggtaaa ttgaatttta ccccgattac ttcgctccgc   840
tattctgatt atctgcaaaa agacgagatc gttatttcat tcaactacat tcgctatttt   900
gcaatggcag gagtattggt cattgtatgt tcattattca attatctgac cctgtttgtc   960
```

```
agccgtcttc gaatgcgcgg tcgtgaactg ggactccgaa aggtttgtgg atctaccaac    1020
cgttcgttgt tcgcattgct atctgtcgaa tacctgattg tcttgctagc cggttctctg    1080
ctgggcatgg ctttcatcga ggcctgctta ccccatttca tagaactggc tcagatatca    1140
gaagctaccc cgctgtatac agaagtcatc atttacatac tggcagtcat cgtttttatct    1200
ttcggtattt cacaaattcc tctatattac ttcagaagcc gtacgttaca gagtagtatt    1260
cgcaataaaa aaggaagtcc ccagcgcgga atattccgcc ggctcggact gatagcacaa    1320
ttgatcatca gtctgggctt catcttctgc accactatca tgatgaaaca actctattat    1380
ctgaaaaaca cagatctggg aatagaacgc cacaatatag gcaatgttgc tgtctggatg    1440
aaaggagata ttaatgaatg gagttctaag atcgccaatt tacctatggt gactgaagct    1500
ctgcctcctc actacttccc gatagtccct acaggaccta tgatgtatac agatattaac    1560
ggctgggacg gactcaatga aaccactgat gaaacatatt ccgtcggcct gataccttcg    1620
ggcaaagagt tcttcgactt ttatggattg cagttgacag aaggggagtg gctatccgaa    1680
aagaactctc ccggagatgt catcattaat gaaacggcag cactgacgtt cggatggaga    1740
aatccagtag gaaaacagtt ctactcagaa tatgaacaca atcggacata ttatacagta    1800
gtaggagtgg tgaaggactt cagctacctg ccacccacta tcgctccacg ccctctcgcc    1860
tttgtccgca ctgaagagca gaaatatcta tggtctcgtg ccagtattct ttttaagttt    1920
acggaaggga gttgggaggc ctgcaaagat acgatccgga aaatgaaaga agaagatttt    1980
ccctcttcgt tcttgagact ttataacgag gaagaggagt ataataaacc taaaatccgc    2040
aactatcatc caatacacga ttaa                                          2064
```

<210> 2994
<211> 252
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (24)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 2994

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gttcctgagc accaaatagt tgcncaggat tttgccatgt cagaattttc acttatctta     60
gtgttgcaaa aagaaaacaa gcaaaactct aatatgacat ggcaaaaata caaattaaat    120
ctgagaaact cacacctttt ggaggaattt tttcaatcat ggagaaattt gactccatgc    180
tttcacccgt tatcgactca acactgggtc agagatgcag cagtatcttc ggatatcagt    240
tcagcgagat ag                                                        252
```

<210> 2995
<211> 2514
<212> DNA
<213> B.fragilis

<400> 2995

```
ttctctctta atatcttaat aagcaagagg ttaaaattct ttcagactct gtgttactcc     60
gtggtgaatc aaactcaaaa tcatacaaac atgaaaacca taaggctggc ctggaaggct    120
ctggcacgtt tcagaacata tacattcatc aatatactgg gcttggcctt gagtctggct    180
tgtgtactta tcatcctccg gtatatccat caggaggtta ccgtaaatca tttctgcaaa    240
gaccttgaaa acacctatct gctatatatc gagtacgaag atggaaggcg gacaataagc    300
agtaatgaag ataggaataa cgaccccaac tttatcgatc cgctgaacga cccgtctgtc    360
ctgaaaagta cccgatggat taactttccg gaagacagga ttacagtagg gaaacagata    420
tataatgtaa aaaccgtagt gaccgacagt gtgtttctgc agatattacc ctatccgtcc    480
gtgtccggca tttcatctct gaagtctccg aatgacgcca tcatcacccg gcgattggct    540
gaaagattgt ttggaaaaga gaatcctatt gggaaaacaa tgacttacag cacgggggac    600
atcgtcacag ttacgggagt aataggagag ccgacgacga aaagcttttt agatttcgac    660
cttattatat ccgaacgatt gcaacattca tggtcgcgtt taagcaatag tctggtacaa    720
ctgatacccg gaacggactt taagaaactg aacgtcaaga acgagaagtt tatgaagtta    780
aggtgccata tggatgcacc gacccgcctg cagttcttct cattaaaaga tttctatttc    840
gataagactg tccgcgttta taataacaat atccggaaag gcaactacaa taatatctta    900
gtacttgccg ttgtcaccat tgctttgttg ataatcggct tgttcaàttt catcaacatc    960
```

```
tatacggtga tgatgctcaa gcgtgccaga gagtttggag tcaaaaaagt atatggtgcc    1020
ggcgcaaagg atgtattcgc acagattttc actgaaaact ttatcctgac aggcatggct    1080
ctatgcatat cctggtgcat tatcgaaata accggtggca tgatggaaca tgtgctccgg    1140
ataccgcaaa cctccaatac ggaatttagt gccacattat ccgtaggaat cctgattctg    1200
ttgccattat tgacttctat ttatccattc atcagataca actacgtttc accttccgta    1260
tctatccgtt cggtaaatgc gggaggacat tccatcgtat cccgtgtgct gtttttattc    1320
gttcaataca tcatcacctt tgtacttatt attgtttccc tcttttttcac gaagcaagtc    1380
cgcttcatgc tgtctgccga tctgaactat accaccaagg acatcattca atgtcagtta    1440
tacgccgaac gctcttcgta tgatataaat atatcagacg aagagtggga gagacggaag    1500
cagagagaga aaagtaatct ggcctacatc aaagaagaga tggatcattc cccgctcttt    1560
atccgttggg aatatggaga gaacccgaat cagctggatg acaattatat caatgtgcgg    1620
aatgcacagc gggacgagtt caagcaagtt atttacagca gcctgagcaa taaatatatt    1680
gaactgttcg gctttcagct aaaagaaggc cgcctatgga atgattctgt cgaccaatgg    1740
actgattata aaatgatcat caacgaatcg gccaaatcac ttctggaaat agataatata    1800
gaaacagccc tgattcagcc tgaaaggaga ttgtggtggt ccttgtcaaa atccgaagaa    1860
atgaagaaga atcctccata tcaggttatc ggagtgatca aggacttcaa aatcggccat    1920
ttatcgaaaa ccactcctcc gctctttatc gttacgaag atccgcgggg cagctacaga     1980
gaccggttga tggcacaaat cgttcccgga aaaaagcaag aagccattgc cttcctgaaa    2040
aaactgcgcg atgaaatact gggcgaaggt gagtttgaat acagctttt agaagacgag    2100
atagcgacca tgtatcagga agacaagcga actgccgaga tatactccct gttcagtatc    2160
attgccattc ttatatcttg cctgggactg ttcggattgt ccatgttcga catccgtcag    2220
cgatatcgtg aaatagcact acgcaaggta aacggcgcta ccctgaaaga gatctatccg    2280
cttctattaa agaaatactc gattatcctg ggaatggcat tcatcatttc ggcacctctg    2340
tcctggtata tcatttcgaa atatctggaa ggattcgcca caaagctcc tatatcctgg      2400
tggctgtttg caattgccgc catagtgact gctttcatat cactggccac tctgatatgg    2460
caaatacgga aagctgccaa tatcaatccg gccaaagtat tgaaaggaga gtag          2514
```

```
<210> 2996
<211> 258
<212> DNA
<213> B.fragilis

<400> 2996
gaaacgtcta aatcgcaacc tatcctttt tcttatgata ctgcccattc gtcattggag    60
gtaacgtcta ccgtttgtcc tgtccctaca ttcacaagcg atagcgagga cttgttcacc    120
gaaagagcag atgctcccgc tgcccattta aattggcacc ttaccatttt tcctgcacta    180
tcagtcacgt caacattagg agctaacggt gtgggcaacg gattgcgggc tatttccagt    240
ttgatggaaa acgcataa                                                   258
```

```
<210> 2997
<211> 447
<212> DNA
<213> B.fragilis

<400> 2997
aattacatcg acatgaaact tattatttat aacagccggc ttgcaaaacg catgctgttt    60
ccggggtatt cgacaatcat gttatttggc attatcctga ctaaaagaag gaaagaagaa    120
tgtccgcctg cattgatccg acatgagcaa atacatcaaa aacagtattt tgagtgtttt    180
atactccctg ttttaccggc tatcctgttt actccatgga tgctgacctt atgccctttg    240
agtttctata tactttatct ggcagagtgg ttcataagtt tcgtatggta tttttggagt    300
caaggaatga cagatccggg cagagccggc catagggcat atatgtcgtc ggccatggag    360
atggaggcta aggtaaaaga ggtagaagca gggtatctcg aaagaagaaa acactttgca    420
tttatgaggt attacgacaa aatataa                                        447
```

```
<210> 2998
<211> 1371
<212> DNA
<213> B.fragilis
```

<400> 2998

```
tataacatgg atcagcttgg aaaaatatta attgtaggcg ataacgagga tgtgttgttc    60
gccctcaatc tattgctcga accttatact gaaaagatta aggtggctac tactcccgat   120
cgcatcgaac acttcatgac tacgttcggt ccggacatca tttttgctcga tatgaacttc   180
agtcgtgatg ccatcagtgg gcaggaagga tttgagagtc tggaacagat tctgaagatc   240
gatccgcagg ccattgtgat ttttatgacg gcttatgccg atacggacaa ggctgtgcgt   300
gccatcaaag caggtgcaac ggactttatc cccaaaccat gggaaaaaga gaaactgctg   360
gctacactct cttcgggcat gaaactccgg cagtcacgtc atgaagtgaa tatgctgaag   420
gagcaggtag aagtgctgag cggacagggt ggacccgaaa atgagattat cggtgaatcg   480
gaggctatgc aagaggtgtt ttcaaccatc aacaagttaa gcgagacgga tgccaatatc   540
ctgattctgg gtgaaaacgg taccggaaaa gatgtgattg cccgcttgct gtaccgttgt   600
tctccccgat acggtaaacc gtttgtaacg atcgacctgg gcagtattcc cgaacagttg   660
ttcgaaagcg aattattcgg atacgagaaa ggtgctttca ccgacgcacg caaagcaaag   720
gcgggacgca tggaagtggc gacagggggt actctgtttc tggatgaaat aggtaacctt   780
tcgctcccta tgcaatcgaa actgctcact gcgatagaga aaaggcagat cagccggtta   840
ggctctactc agtcggtacc tatcgatgtc cgcctgatct gtgcgacgaa tgccgatatc   900
agggcaatgg tggatgaagg taacttccgt caggatctgc tctatcgcat caatacgata   960
gaaattcata ttcctcctct acgggagcgt ggtaacgatg tcattctgct ggccgagttc  1020
tttttagagc gctatgcccg caaatataag aaggagatgc acgggctgac gcgcgaggca  1080
aagaataagt tactgaagta taattggccg ggcaatgtac gcgagttgca acataccata  1140
gagcgtgccg tgattttggg tgacggctcc ctgctgaagc ctgagaactt tctttttccac  1200
tcttctgtcc ggcaaaagaa agaggaagag gtactcaatc tggaattgtt ggaacggcaa  1260
gcggtagaga aagccatgcg gctgagcgag gggaacatca cccgggcagc cgagtatctt  1320
ggtatcaccc gttttgctct ttatcgtaaa cttgaaaaac tgggcttatg a            1371
```

<210> 2999
<211> 1488
<212> DNA
<213> B.fragilis

<400> 2999

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aaaaagaaat gcacaatgaa cttgaaaacg atacttatca ttgccggatg cagttatatc    60
tttccggcaa ctgcacagga acgcacgatg gagctctcgc tggacgaaac cgtaaagctt   120
gccaagcttc agtcacccga cgcacaaacc gcacgccaca gtttccgctc agcctactgg   180
aactataaat attacagggc gaactatctg cctgccttga gcctgacctc ggacccgaac   240
ctgaaccggg ctatcaataa ggtaacactg ggagacggaa ccgtgaagtt tgtagaacaa   300
aacatgctca gcaccgacct tactctgaat ttaacacaga acattccatg gaccggcggt   360
tcactgtttg tggaaacggc agcacaacga atggatatct cagcgacca cacgacagcc   420
tggcagactt cacctattaa tataggctat cgtcagtcgc tcttcggata taacagcctg   480
aagtgggatc gccgcatcga accggtccgc taccgggaag caaagaaatc gtatgtagaa   540
acactggaac tggtagccac gcgtgctact caaaaattct ttaaccttgc caccgcacag   600
agcaattacg aaaccgccac taccaattac gctaacgcag acacactcta tcaatatgcc   660
cagggacgct acaacatcgg taccatcacc gaaaacgaaa tgctgcaact ggaactgaac   720
aaactgaccg aagaaaccaa ccgaatgaat gcccgtatcg agatggacaa ctgcatgcag   780
gagctacgct cgtatctggg cattcagagt gacgaggaac tcaaggtgaa aatcaacgac   840
cacgtacccg acttcagtgt agaactgcac gaagccttat tactggccaa cgaaaacagt   900
ccggaaatac aaaacatgat acgccggaaa ctggagagtg aaagcaacgt gtcgtacgcc   960
cgtgccaatg ccggactgaa agcggatatt tatctgcgtt tcggcctgac acaaactgcc  1020
gacaagctgg gaagcgccta caagaggcca ttggaccagc agtacgtcag cctgagtgta  1080
gcactaccca tcctcgactg gggacggggc aagggcaaag tgcgcgtggc acgctccaac  1140
cgcgaccttg tgtacacaca ggtggaacaa gacaagaccg atttcgaact aaacatacgc  1200
aaactggtga acaatttaa tcttcaggcc cagcgggtca gaatagccgc gcgaaccgat  1260
gaaacagctc aacgacgcag cgacgtggcc cgcaaacttt atctgctggg caagtctacc  1320
attctcgatc taaacgcttc catcaccgag aaggaccagg cacgccgcaa ctacataacg  1380
gctctttaca actactggag tctgtattac acgttgcgca gccttactct tttcgacttt  1440
gaaggcaaaa cgccgcttac cgagaattat gacctgctga tagactga                1488
```

<210> 3000
<211> 462

<212> DNA
<213> B.fragilis

<400> 3000

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catgattgtc gaataccccg gaaacagcat gcgttttgca agccggctgt tataaataat      60
aagtttcatg tcgatgtaat tttaatggtt gccgcaaagt tcgcatactc ttttcagggc     120
gtaaaggaca tcctagttct tatggaactt ggaaaatacc ccggacgggg agtaaaagca     180
aagcgaatca aaacagtaga aataaatcat ttaataaatt acaagtatgg caaaagcaag     240
ttggtgcaat gtaagcccca tgtcgggcaa gagagatggc gttttgacaa tcagtgcggg     300
tgctcacaca ggacgtgtag cacgaaatac agtagttacc gtaacagcgg caaacggaac     360
gagaccctca gccagtatag cggtatctca ggcaggtgca ggggtatcca caaccatgga     420
tacaagcaaa ccggaccttc cctcttccgg aggagtcgtt aa                        462
```

<210> 3001
<211> 225
<212> DNA
<213> B.fragilis

<400> 3001

```
catgattgtc gaataccccg gaaacagcat gcgttttgca agccggctgt tataaataat      60
aagtttcatg tcgatgtaat tttaatggtt gccgcaaagt tcgcatactc ttttcagggc     120
gtaaaggaca tcctagttct tatggaactt ggaaaacacc tcggacgggg agtgaaagca     180
aagcgaatta aaacagtag aaatcattta ataaattacg attag                     225
```

<210> 3002
<211> 639
<212> DNA
<213> B.fragilis

<400> 3002

```
attacgatta gtatggcaaa agcaagttgg tgcaatgtaa gccccatgtc aggaagtgag      60
aacgggactt taacaatcag tgcggcagca catgccggac gggaggcccg cagtacgaca     120
gtgaccgtca cggctaaaaa cggaacgaag ccctcggcca gtatagcggt atcacaagcc     180
ggcgtaggag tgcaattaac gatggatacc tctaaaccgg atttacccgg agaaggaggg     240
tctgtcacta ttaacgggaa ctctaacagc ccgacattga aaatatcggt tcctctgatt     300
aactttccgg gggttaccgc ttccgcaaaa ttcaatgctc cgggaattac tgacaaagtg     360
cttgccgcct cagagacggt tactatccca ggagaccccg gagcgaacgg ttcttatgcg     420
ttttccatca aactggaaat agcccgcaat ccgttgccca caccgttagc tcctaatgtt     480
gacgtgactg atagtgcagg aaaaatggta aggtgccaat ttaaatgggc agcgggagca     540
tctgctcttt cggtgaacaa gtcctcgcta tcgcttgtga atgtagggac aggacaaacg     600
gtagacgtta cctccaatga cgaatgggca gtatcataa                           639
```

<210> 3003
<211> 246
<212> DNA
<213> B.fragilis

<400> 3003

```
ctaaaacata gtgaaccaac catctgtaat ggcgtttata ttattattaa taaaagaaag      60
gagatcggac ttatgaatac cgaaaaagag aaaacttcat cagaagaaca aaaaaaggct     120
gaaaaagtgc ttaaagacaa agttcccgta cagcaaaccg gaacctacag cgaagccacc     180
aagaaagaag tgcgcgacgc agtaaaagag ctcaatccgg acatgagcgg attggatagg     240
ggttaa                                                                246
```

<210> 3004
<211> 1305
<212> DNA
<213> B.fragilis

<400> 3004

```
cctgctgata gactgaccgg aattataaac tgcaaatcga aaaaacaaaa taatatggat    60
attaaaattg aaaagaaacc ctggtacatc cgctataaat tctacatagc cggaggaatt   120
gcatttgtcg ctttccttgt ttacgtcatc attctgtcgg ccgggccgcg caagctccgc   180
atcgagtcgg aaaacataca gatagccgaa gtcaaagatg acaagtttat ggaatacgtc   240
gatgtggaag gattgataca gcctattctc accattaaag taaacacccg tgaagcggga   300
agcgtagagc gtatcatagc cgaggaaggc agtttgctcc agaaaggaga tacaattctg   360
accctctcga atccggactt gctgcgtagc atcgaagacc agcgggacga ctgggagaag   420
caacgcatca cttatcagga gaaagaaatc gaaatggaac agaaaagcct gagcctgaaa   480
caacagacgc tggaaaccaa ttacgaactg gcacgcctga aaaaaagttt cacgttggac   540
aaagaagaat tccgcatggg catcaagagt aaagcacaac tcgaagtgtc ggaagacgaa   600
tacaattaca aggtgaagaa tgccgaactg caacgcgaag gtcttcgcca cgattcggcc   660
gtgaccatca tccgcaaaga tctgatacga accgatatgg agcgggagcg taagaagtat   720
gaacgggcca cagagcgtct gggcaatctg gtagtgaaag cacccatcag cggacagctg   780
agctttgtga aagttactcc aggacagcag gtgggctcca gtgaaagtat cgccgaaatc   840
aaagtactcg atcaatataa gatccatact tcattgagcg aatactacat cgaccgcatt   900
accaccggac tgcctgctac tgtcaactat cagggtaaaa agtatccgct tcgcatcaca   960
aaagttgtgc ccgaggtaaa agaccgcatg ttcgacgtcg atctggtctt caccggcgaa  1020
atgcccgata acgtacgtgt aggtaagagt ttccgtgtcc agattgaatt gggacagcct  1080
gaacaagcca tcgtcatccc acgcggcaac ttctatcagg ccaccggcgg acagtggatt  1140
tacaaagcca atgcatctag aaccaaagcc gtacgtacgc ctatcaccat cggacgccag  1200
aatccgcaac aatatgaaat taccggagga ttagagcccg gagattatgt cgttacaaca  1260
ggatatgata cctttggcga ggcagaagaa ttaatactta agtaa                  1305
```

<210> 3005
<211> 1290
<212> DNA
<213> B.fragilis

<400> 3005

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aaaactgggc ttatgaaacg ctattccatc agtgtggtgc tgcacattct attgttggtg    60
gtgctctcca tcggaggata cttgctgttc tgttacgaat tatggttcag cactctgatt   120
gtgggcatcc tgctgatcgc tacaggcgtt catctctatt ccatccagat gaaattggca   180
ggcatgatga gacgactgac agactgcatc cgcttcaatg acatgacgca gaactttcag   240
ccgccgttta aaagcaagat gatggttgaa ctggcggacg aactctctca gacacttagg   300
ttgttccgcg gacgcctgct cgaggaagag atcaagcacc agtattacga gaaccttttta   360
aataaggtag atacggctgt ggtggtgact gaccgttcgg gccgagtgga atggatgaac   420
cgtgcggccg tggcactggt cggacaagaa tcccggttgc ctcaggagtg gctgaccacc   480
tcctggaacg agacgcaggt ggtacgtatc cggcagcaag agcctcggt agagatggcg    540
gtatcatgta ctttgtttgc cgcacaaaat aaggaaaggc tgttggtcag cctgaaaaac   600
atccattcgg tattggaacg taacgagatg gaagcctggc aaaagttgat acgggtattg   660
acccatgaaa taatgaactc tatcactcct atcatttcat tatccgaaac attgagtgaa   720
cgcggaatac ccgaacggct cagtgagaaa gaatacggag tgatgttgca agccatgcag   780
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tgcggacaaa atactgcacc gcagatagaa gtagagttgg aacaggtccc cggaaaagtt  1080
tgcagtctca cggtgcgtga caacggcgaa ggcattcttc cggaagtgat agacaaagta  1140
tttgttccgt tctttacgac caagccatcg gggtccggca tcggactcag tttatgtaag  1200
cagatcatga atctgcatgg cggcaccatt acagtctcct cagagatagg gaaaggaagc  1260
tgctttacac tgatgtttcc gggaagatag                                   1290
```

<210> 3006
<211> 1254
<212> DNA
<213> B.fragilis

<400> 3006

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gtatttatta tggcttctat taaattgtat ttcgacaaac gtgtgaatag gaaagatgga    60
aagtttcctc ttaaaattaa tgtcacacac aaaaggcagc aggccttaat caatcttggt   120
gttttattat ctccagatca gtgggattcc acaaaaggaa aggtgatcaa tggtcctaac   180
aagtcattcc ttaatggcta tatctcccag cgagtgcatt gtgctgaaac ggaattattg   240
aatttaagga ttgccggaaa gttggactta atgacaggaa aacagttcaa ggagcatctt   300
caacgaatat tattgagggg aaaattagag gagaaacagg aagaaactgg atgttctttt   360
gtgcagtatt atacaaggtt tgtggaagga aagaaaaatc cccaaacgaa ggcagtctac   420
caatatacac ttgatcgcat atgtcgtttt gtggatgtac cagataagtt tagatttgaa   480
gatgtgacct atgcttggct aaagagtttt gagattcatc tttcagagac ctctaaagtt   540
aactcgatta gtattcacat gagaaatatc cgagctgtat ttaatgatgc tcttaatact   600
gaaactattt catgttatcc atttaggaga tttaaaataa aacaagaggc aactgcaaaa   660
agggcattga ctccagagga acttgtgact ctaagagatt atccttgcga agagcatcag   720
aagcaatatg ttgatatttt tatgttaatt ttctatcttg taggcataaa tactgttgat   780
ttatgtcgtt tggagaaaat tagaaacggc agaattgaat atcgaagggc taagactaag   840
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agtaagtatt tacttaatat tcttgagcgt tacaagaatt ataaagatta cgctcacaga   960
cttaatgaaa acctccaaga gatcggaagt gttgaactag tagaaaaggt gattaatggt  1020
aaaagaagac gagtaaaaaa acgctttccc ttatttccag agctaacggt ttattgggcg  1080
cgtcatacat gggcgacaat agcacataaa ataggagtgt caaaagatgt tatttcattg  1140
gcccttggtc atgaatttgg gtgtaaaact acaagtattt atatcgatta tgatatggag  1200
aaagtggaca aagccaaccg acaggtgctt gattatttag agaacttgaa atga          1254
```

<210> 3007
<211> 633
<212> DNA
<213> B.fragilis

<400> 3007

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attacaagta tggcaaaagc aagttggtgc aatgtaagcc ccatgtcggg caagagagat    60
ggcgttttga caatcagtgc gggtgctcac acaggacgtg tagcacgaaa tacagtagtt   120
accgtaacag cggcaaacgg aacgagaccc tcagccagta tagcggtatc tcaggcaggt   180
gcaggggtat ccacaaccat ggatacaagc aaaccggacc ttccctcttc cggaggagtc   240
gttaacataa acggaacgtc taatagttca aaattaaagt ggacctgtac cgcaagagtt   300
atgggagtag atatgcctat agacggtaat tatgtaaaag tggcggtaaa cggtgggaat   360
ataggaaata atgtggctat tccgggggac cccggagcat cggggcgttt taactttgtg   420
gcgacattaa cttttcccgc ttcgatgttt ccggttgacg ctgtagtgac ttttaggctg   480
acggatgata ccaattcagc taaacaatgt actttcactt ggaaagcggg tgcgtcttct   540
ctttcagtga acaagtcctc tttgtcattg gttaacggtg gaaccgggca aaccgtaaat   600
gttacttcca atgatgattg gaacgtctct taa                                 633
```

<210> 3008
<211> 378
<212> DNA
<213> B.fragilis

<400> 3008

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ataaagttag ttttaattat ccatactaaa aatgtaatta tgaagaaagt attagtagca    60
ttgacaatgg ttatggggat gggcagcgca gtagcgtttg cacaagaacc ggttaagctc   120
cccgctatgg aacagaatca acaaacatct caagacaaat tcacaaagat tactgtcaaa   180
gagcttccgc aagtagtcaa gagtactttg tccaaggatt acgaaggaac tatagttaaa   240
gaggctttcg ttgctgaaaa agaaaacgga aaggtttaca agataattgt aacagcaatc   300
aaagaagacc aatcaactga agagataact gtattgttga atgaaaaagg ggaacctgtg   360
aatgaaaaag attgctaa                                                   378
```

<210> 3009
<211> 690
<212> DNA
<213> B.fragilis

<400> 3009
```
aaccttccat cgaaaccgaa tttgcctccc tcagtaaaag aacaggccga tgacgaagcg    60
atccgggtct ttaccgaaaa cctgcgccaa ctgcttcttg ccccaccctt gggacaaaaa   120
cgggtaatgg gtatcgatcc cggctttcgc accggttgta aggtggtctg cctcgatgca   180
caaggcaatc tcgtacacaa tgaaaacatc tatcctcacc cgccggtaga caaaaaaact   240
gaagcggctt cgaaactccg caaaatgatt gaagcttaca agatagaggc catcgccatc   300
ggtaacggaa ctgccagccg cgaaacggaa aacttcgtca cgcaccaaca gttcgaccgt   360
cccgtgcagg tctttgttgt cagcgaacag ggtgcttcca tctactcggc ctccaaaacg   420
gcccgtgacg agtttcccga ttatgatgtc accgtccgtg gggccgtctc catcgctcgc   480
cggctgatgg atccgctggc ggaactggtc aagatcgctc ctaagcccat cggtgtcggc   540
caataccagc atgatgtaga ccagaccaaa ttgaaaaaat cactcgacca gacagtggag   600
aactgtggaa tgtcagaaac aacaaaggga tctgttatca aaaagcggat actcgctatc   660
tttttgcgcc attattctgc aaacggatga                                    690
```

<210> 3010
<211> 2949
<212> DNA
<213> B.fragilis

<400> 3010
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tttgaaacat ctaacttgat gaaacagaat actttatat atgcagctat tgcgtttttt    60
gtttgtagct cttgtacatc cggtaaatat tctcctgttg actatgtaga tcccttatt    120
ggtacaggtt ttcacggtca tacgtatccg ggggcaactg ttcctttcgg tgcggtacaa   180
ttgagtcctg atacccgtgc gggaaattgg gatgcctgtg cgggatatca ctatgatgat   240
acaactctaa aaggctttc gcatacacat ctaagcggaa ccggatgtat tgatttgggt   300
gacattttgt ttcgtcctac aactctaaaa ccggatctga ccgccgaaag catttgccga   360
ccggctaatt tctcacataa agatgaaagg gcgtcggcgg ggtattattc ggtgatattg   420
aaaggtgaag ggataaaagc ggaattgacc gcaacaactc ataccggaat gcaccgttat   480
acattccctt ccggaaaacc cgttactatt attgtcgatt tggctcattt acttgacaat   540
gaatatatct atgaagcgga attggaacgg acaacatcta atgagattgt gggaatgcgt   600
agaaccagag gttggacaga taatcaatat gtttattttg cagcccagtt ctcagaacct   660
tttcaaactg ttgagtttgt acaggataag aagatagttt ccgccgaaac caaacaggtg   720
ggtactgact tgcaagcgat tctgacattc gctgacaaag atggagaacc tataatcgcc   780
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<211> 183
<212> DNA
<213> B.fragilis


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<212> DNA
<213> B.fragilis


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<212> DNA
<213> B.fragilis


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<211> 186
<212> DNA
<213> B.fragilis
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caatgtccgt caatggtaaa tcccctaca ctctccggca taaagttctc cgtggccgct    180
ttataa    186
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<210> 3015
<211> 237
<212> DNA
<213> B.fragilis
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ctgaaaatgt ttctgagttt ttttattttc agaaacaaag aaaaagtgta tgaatgtaat    180
acattgatta ataatacatt acttaatatt gactcagaaa cgctttcaga aacataa    237
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<210> 3016
<211> 753
<212> DNA
<213> B.fragilis

<400> 3016

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atttatgaag tcattctccc tttcattata agaaagagcc gcataattat caaacaaacg     180
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gtcaacattg gcgtcgatat cggattagga tatctctatg ttgattacga taaattctat     660
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gtaggtgtat ccattattta tctgttaaag tag                                  753
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<210> 3017
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<212> DNA
<213> B.fragilis

<400> 3017

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ccggtatatg cttttggtcc cggagcacag gaatttaccg gaatttatga gaatactgct    1140
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<210> 3018
<211> 297
<212> DNA
<213> B.fragilis

<400> 3018

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caagatgctt cagcggtact tgatcagctt tttcaactta ttacgggtat gatgaacgtc     180
caggtggatg gtattggtat cggtgtccct tcaattgtag atgtggaaaa aggtatcgtg     240
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<210> 3019
<211> 1224
<212> DNA
<213> B.fragilis

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tactcaaaaa aacatgaacc atgggttgta tgccggatgc caccttccta taaacttact   180
tatgggatag aagggggttct gaaatgggca aaagcgtggc aggcagacgc cattatcggt   240
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<211> 408
<212> DNA
<213> B.fragilis

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cgaaaacatt cttttcgttc tattttttaat gttattttt atttagtaaa aaccggatgt   360
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<210> 3021
<211> 876
<212> DNA
<213> B.fragilis

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caaccgagta gcaaagaaat acaactttgc tgcttgatac tggaaaacaa aacaaccgaa    720
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<210> 3022
<211> 258
<212> DNA
<213> B.fragilis

<400> 3022
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<210> 3023
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<212> DNA
<213> B.fragilis

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<210> 3024
<211> 432
<212> DNA
<213> B.fragilis

<400> 3024
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ttttttcttca ggatgaatcc caatacaact ggggcaaaaa accgggcaaa aaggattgcg    180
gcttgtattc gtaattttga tagaaaatgt gaagaacaac ttttttcacg ccggtggggg    240
atctctttttg tgagtgctac cggactgcat tcgggaatac cgctggtttt cgcgaataag    300
gttaataaac cagtggcgga ttatctgaag gagaaccgta aacgaaattg tggcattgta    360
ttcattgatt ttatagaaag ttcgggagga caaaaattag tggaatatct cattggaggt    420
aatatctatt ga                                                      432
```

<210> 3025
<211> 555
<212> DNA
<213> B.fragilis

<400> 3025

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tccggggcgg atggaaagtc cgctccggtt gatatctttt tcttgtcgga aagagaagaa    60
tacgaaacta aaatgaagaa attgctaccg atacttttag gggttaccct actgctgaat   120
tcatgtatta aagatgatat ggatgcttgt gccggatata tgcacatcta tttcagctat   180
atttatggtg gagccaaccg cttttttgag acggtttcta ctcctacgca acttcatttt   240
tataaacaga agcataaata tcgggagttg gaaatagccg tggatgaaat aggactgacc   300
gaaccttatc gcttcctgaa aaactttgat gatacggata gcctggaact gatagcttgg   360
acacaggatg aggcgattga ttatgtggat actcctgata ctcccatagg agaggggtat   420
gtgaaattaa aagaaattac cgatggcagc ggaatctgcc gacctgtaga cgacctgttg   480
tacggacgca ttgccataga tgccggtttg cgcgaaaatc ggtcttcacc acgggggtgg   540
aaggatcagc agtag                                                   555
```

<210> 3026
<211> 1698
<212> DNA
<213> B.fragilis

<400> 3026

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aagtataaac tattcgaact tatatctata attaaatttt ttagtaacat gaaattaaac    60
aaattgttta cgtttacatt ggcagccctt gcgatggctg catgtagtaa tgatgacgaa   120
ccgggaattg ataaaggtgg tcagaaaggt gaattgattg atgctatcag cattgctttt   180
accagttctt cagctcctgc tacccgtgca gacaaaggtg agatagaagg agtgggcact   240
gaaaataatg tatatgtagc ctatctcttt gctaaagaga atgatcccca acatgaaggt   300
gcaaaagtgg gtgactggac tgtaaagcgt gtagctggtg atgctaatac agaggataag   360
gatgttgcag ctgcaatcgg tgagggcgat gtggcaactc ccgggacgaa gaaaaatatg   420
tgtacgttca acggtgtacg ccagggagat agtgtttatg tggttgtgaa tgatcctcag   480
atgacccttg ctaccgctca gacattggcg catcagggtg acaagtcgga agccgctatc   540
cgtgcatata tctctaatct ctctaaaagt tatctgaatg agctgaccgt tactaaagac   600
gggacgcagg gtaagaagta tatcatggca ggtgtatcgg ctattcctac caacccgaat   660
atcccgaacg gatctaccgt gaaagtttcg attcctctga accgtgaatt agccaaagta   720
ttctttaatg cctctgttac taccaacccc gtatacgagg cttatggtaa gatggcaatc   780
aaagatgcag aatgggaaaa tccgacaggt actaaagacc ctgatggtat tgtcgtagtg   840
cgtattccga gacgtgtttc tccgtttacg gcacaggctc gtgactggta tttcccgcag   900
agtgcagatg caactgctaa agactgggat gtggaaggtt ggttgaaagc atttgcaggt   960
gagaaagaat ctgcacccgg tactgcagaa gttgctggaa cgacttctgc attgaataag  1020
ggagaataca atgcagacgc gaaagaatat cgtctgacat gggttgtagg tgaaaaagca  1080
ttggctgatg gagctactcc tgcagctgct tcgatggtat acgttaagag tgacaagtta  1140
tattctcctt attttatgt aactcctaac tatgccgaca atgccggttg tgctactgtt  1200
gtagttaccc aggctactta tatcggtgcc catactctgc ttgaaccgac tattacagaa  1260
cagatgttga agaagctttt ggatgattct gatttccaaa cagctacttc tactgacgga  1320
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ttggttacgt tcctggaaaa ggatgcgaca tataaacttg cgttgagagg tgaaacagaa  1440
caagccaaga aagaagctgc cattacgatt aaacctaacg ataaacgtta ctatcgtgct  1500
gatgttgcca actatagcga tgacgaaaca acttcaatga agattaccga acgcaacaca  1560
ttctatcata taacaggtac catcactaca ctgggtgcca agagcattga agatgctatc  1620
aattcggata atatcgacat gcttgtacag gtagttgtta agccatggaa atatgttgtt  1680
aacaatataa atatgtaa                                               1698
```

<210> 3027
<211> 1176
<212> DNA
<213> B.fragilis

<400> 3027

```
aatgaaggcc ggccggatac attcgtcata acaggtgata ttgacgctat gtggctccgt     60
gattcatctg cgcaggtatg gccttatttg ccattgatga aagatgataa ggaactgcaa    120
cttttaatag cggggcttat taacaggcag gcggaatgta ttcggattga tccttatgcc    180
aatgcattca atgacggtcc gttgggcagt tattgggaga ctgaccatac acagcatatg    240
gtgaaagaac tgcatgagcg caaatgggaa atagattctt tatgttaccc catacgtctg    300
gcttatcact actggttgtt gacgaaagat atttccgcat ttgatgcaga ttggcacgag    360
actatgaagc tggtagtgca gacctttaaa gagcaacaac gcaaacaagg tttggggcca    420
tacagttta cgcgtgattg tgaccgcccg actgattcac aaattaataa cggatggggt     480
gcgccggtaa aaccggtggg tttgatcgtt tcctcttttcc gcccttcgga cgatgctact    540
caatacggct tccttattcc ttccaatatg tttgcagtgg tgtcattacg gcagttggca    600
gagatagaac gtgaggttta tgataatctt ccctttgcgg aagaatgtac tgcattggcg    660
gatgaagtgg atgccgctat ccgtagatat ggaacattca atcatcctgt atgcgggcgg    720
atatatgctt tcgaagtgga tggtttcggt aatgcccttt gtatggacga tgccaatgtt    780
ccttgtttac tggcggctcc ttatttgggc tactgttcgt ttaaggatgc cgtctaccgg    840
aatacccgta aaatgatatg gagtgaaaac aatccttatt tttttaaagg caaagctggt    900
gaaggtgtgg gaggccccca tgtggggttg aactacattt ggccgatgag tatcattatg    960
aaagctttta cgacggatgc ccctgaggaa atacgcagtt gcctgaaaca attgcgtgat   1020
acggatggcg gaacaggttt tatgcacgaa tccttcaact cggagaatgc cgctgatttc   1080
acgcgctctt ggtttgcctg gacgaataca ttgttcggtg aacttatcct taagataatc   1140
cgggagtatc ccggcctttt atcccaagca ttatga                             1176
```

<210> 3028
<211> 189
<212> DNA
<213> B.fragilis

<400> 3028

```
gaagtaacca gagaaaatcc ggtactttca gccgcttttc aaggagaaaa aagactactg     60
tcgatcatct accgacttgc cgccgacaag aagttaactt cgtataaaca aagaattaac    120
tttctgccgg caaagaacga actctttgca actacgttat tcacttccta tgggcaaaaa    180
agtgaataa                                                            189
```

<210> 3029
<211> 624
<212> DNA
<213> B.fragilis

<400> 3029

```
acagaagtga gcgcgtttat gaatacattt aatttaaaac tagatttccc caacttgttg     60
tgggagatag ccggatataa tttcccgtct ctattcggga aacgggctat actctttatt    120
ttcatagcaa tatcttttca agtatccgcc caacgcatgg ccatcaagac taatacgctg    180
gaatggttgg cggcatcccc caatctggga gtggaattcc cattaaacga ttggatgaca    240
gctgaaattt cggcatcggc taatccctgg aagattacag ataaactttt ctaccgccat    300
ggacgcatac aagctgaagc taaatattgg cttcggaacc tgctggcacg ccattacatc    360
ggtatcacag gattctattc catgttcgat gtgggaataa accgcagggc atattatgga    420
gatgccgcgg ccgcgggtgt cacgtatgga tacaactgga ttctgtcacg tcgctggaac    480
cttgaggtat caggcggtgt gggtgtggca cgctacaggt tggtgcgcta ccaaccggga    540
agcactcatg atgaaccgaa tgaatcggga tgggccccca taccggttaa actaagtgta    600
tcttttatttt atatagccaa ataa                                         624
```

<210> 3030
<211> 1131
<212> DNA
<213> B.fragilis

<400> 3030

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agtaggggag gacaggctat gaatatcaaa caggtaattt tcataaatat ctcatttttc     60
atctctctaa cagtgttagc agcagatagg cctacacagc ctgtccgtac tgaggtgtat    120
cgcttggagc gtcttgactc cgttctgctg gtcgatctgg ctgtcgacct gacaggggtg    180
```

```
cacctggcgc cggactgtac ggtctatctg tttccgctac tcgcttcgga gaataccggt     240
gattcgttgt ctcttcctcc cattgtgctc aacggccccc aaagcgatct gatgtatcgc     300
cggcgtcggg ctttgggtac aacttcggga ttggagaaga ttactcccta caccgtgctg     360
cgtgagggag accatgcttt gcctcgcatc cattatcgga ccgaggtgcc ttatgcggca     420
tggatggacg atgttaaagt atggatgcgc gacacgaatt gcaattgcga tgcccgtctg     480
gtaccttttg ccatgcatac ggagcatata ccgccgttgg ttgtggaacg ggtggatacg     540
attgtgatac atgacaccat ccgcctggct tctgttgcat ccggacagtc gaccgtagct     600
tcggatattc cccttcgtaa gaaggtgacc cgtattcagg ccggttatga agctgatatt     660
tattttccta cgaatgaaat gcgtattctt cccgatcatg agttgaaccg tgcttcatgg     720
atgcatttcg ttaaccaagt ggattctatt gaacaggata accggaattc catatcggga     780
gttaccgtta ccggttactc ttctcccgaa ggatatactt ctaataatga acgtctggct     840
gaaaaacgtg ccaaggccct tcaagcgttc ctggaaaata aatatggcga acgtatggag     900
gtggcagtcg agtgggtcgg tgaggattgg aaacagtttg agaaagatat agaggtttct     960
gaccttccgg aacgtaatga aattctttca atcctgcgta ctgtgagtga tagcaatcaa    1020
cggaagagta ggctgaaggc actgaataag gggaaaacat tcgaaattct gcttcgggag    1080
tattttccga aactccgtcg ggtgtcatgc cgtattagat acgtaaaata a             1131
```

<210> 3031
<211> 582
<212> DNA
<213> B.fragilis

<400> 3031

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aagcgattta tggtgccggt tgctattaac aatgactcta attgtttcac tttaggcaaa      60
agtatgttcg gcgaggggaa gccttatgcc catatggtgg gagttactat tgggacaggt     120
ataggtgcgg gtgttatcat taatcatcgg ttgtattgtg gtcaatatat gggggctggt     180
gaaataggct cgcttcctta tctggattct gattttgaac attattgcag tagttctttc     240
tttaagcgac atgacacgac aggtgtagtg gtagccgaaa aagcagaacg gggagatggg     300
gctgcgctgg aaatctggag ggaatttggg acgcatctgg gtaatttgat gaaagtaatt     360
ctctttttctt atgctcctca agctattatt ttgggcggaa gtatagtatc ggcttttcac     420
ttttttaagg atactatgaa ggacgctatg caagatttcc cttataaaat actattggac     480
aatgtgaaaa taattacttc atatttgaag gatgctagct tattaggagc ttccgctttg     540
tttgagaaac aatatttacc aatatctatt atagacaatt aa                        582
```

<210> 3032
<211> 1146
<212> DNA
<213> B.fragilis

<400> 3032

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aataagaata tgaaaagaat gtattacata ggatatatgc tctgcttgtt gcttgccggt      60
tgtgtagtcg gtgaggaagc ggacggcctg ttggagcaac gtctgtctga tcgtaccctt     120
ttggtctata tgggagggga taatgattta gccgacgaga ccgacgaaaa attgtcagcg     180
ttaacagagg cgtgggacag gtttccgggg catctattga tttatcagga taaaaaagga     240
gcggatagta cccgcttgtt agaggtttgt ttggatgaac agggagaaaa ggtaacaaaa     300
atattggcta agtataaaca ggagaattca gccggtgcct ccgtgtttgc acgggttgtc     360
aatgaggcta tggcccggta tccttccgtt gatccgggat tgatcgtatt ctcccatacc     420
agcggatggt taccgtcggg gacggcagtg gttccggccg gtattacccg ctcggttatc     480
aaggacaatc attacgagat gagtttacag gattttgctt cagccattcc ggacgggcaa     540
tttaatttta tcctttttga agggtgtttt atggccggac tcgaggtggc atacgaactg     600
aaagataaaa cgcaatatat tgtgggttca tcagccgaaa tgctttcacc gggtttttact     660
cctgtctatc aacaaatgtt tccgttgctt tataaaaaag aagcggatct tccggcagtg     720
gctgctgcct attacgatta ttacaacagt atggaaggcg acaatcgttc ggctaccatc     780
agtgtgattc agacgtccgg cctggaaatg ttgaaagttc aacttcgggc ggccgagagt     840
cgtgtggagc gttgggaatg gatagatcgt agcggattgc aggctttga ccgcttatcg     900
gacgggcggc atctctttta tgatgcttcg gcctatataa aacggattgg aagtgttgaa     960
gaatctgctg cttttgacga ggctctggag caagttatca tttataaagc ggccacggag    1020
aactttatgc cggagagtgt agggggattt accattgacg gacattgtgg catgacgttg    1080
tatatacccg atgctactgt tcccacatta ttgaccgaaa gaaagaaact gaagttaatg    1140
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caatag   1146

<210> 3033
<211> 186
<212> DNA
<213> B.fragilis

<400> 3033
tcaggatgta tagtctttac tcaatattgc tttctatttg ctcaaaaatc tttctttttt   60
gtgacgcata ccctattttt ttcttttgtg atagaagttg tttattgtat atatatgcaa   120
aaggaaaatg tttttgagag tctgaataat atgttattca cttttttgcc cataggaagt   180
gaataa   186

<210> 3034
<211> 1446
<212> DNA
<213> B.fragilis

<400> 3034
aaaaacggta ttgcacattt gcagcacccc gaaaagggga ggtgctgcaa aaatgcaacg   60
ctgattttta ggttatcttc agggcggagg ttacatttgt cctacccttt atggagggag   120
atgcaaacaa aatgtataag attatttaag atagtgaaat tgggaagctg ccaacatatt   180
gatagcaggt gttgtttttac ttttgtaaac cagttaaaag taaagaagaa gatgacatca   240
attacaccac ggctcaatcg ctcgcgcgag gggcgtgatg gcagttatcc gcttgtgata   300
caaattattc gccatcgaaa gaagagagag atttatacgc cttaccgttt ctgggaggca   360
gagtttaaca cccgtttaga aatggtggag aacgtcggag gcaatcgccg tcgtctgctc   420
attgtccgcg aagccaatga ataccttata tatataaaga aggagttgga ggctatttgc   480
agatcgcttg aagcggataa ggggagtgct tatacggtgg acgacattgt gaacgtttat   540
aactaccaca atgatctgag ccaggtgttg gtatatgccg actcggtgat tgccgggctg   600
gagaataagg gacgtcaggg tacggctgcc aattatcgta gcgcccgccg tgcgtttgag   660
atgttttttgg atggcagacc ttttttcattt gaggagttga ctcccgaagt gctggaccgc   720
tttgtcacct ttctccgtga gcggggcaac cggcccaata cggtttcgtt ttatctccgt   780
cagtggcgtg ccatctacaa tcgtgcctgc gccgatcatg tggtttttttc cgatcaaaag   840
cctttccgac ggctgaacct caaagaggag gtgacatcca aacgcgccat ctcccgggag   900
aagattgcgc agatcgaatg tgtcgacctt actgcttgtc atgctgatat gcagcttgcc   960
cgtgacctgt tcctgtttag cttctatacg cgcggaatgt cctttgtaga tatgtgctat   1020
ttaaataagg agaacctgca gggaaattat cttcggtaca aacggcagaa gacagggcag   1080
gagttacaga tacgcattga aaaagatttg cgtgtgttaa tcgacagata cgccagccct   1140
ttgtcggact atctgcttcc aatgcttcga aacggtgacc gttatcagga ttatcggcgc   1200
aggcagcgga ggcttaataa actgattcgt gaattgggcg accggttaca gttggatatg   1260
ccactcacat tttatgtggc gcgccactca tgggcgacac tcgctcacga aaatgatgtg   1320
cccgtctcgg tgatcagcga ttgtatgggg cacacatcgg agaagactac ccgcatttat   1380
ctggatcgca tagacactaa gcggcttgac cgggccaacc ggttggtgat taatagtctg   1440
cggtaa   1446

<210> 3035
<211> 873
<212> DNA
<213> B.fragilis

<400> 3035
cataatgcca tggaaaaaat aattttatta gttttgccat ttttcgctgc atcatgcggc   60
ctagtgaaac aacaggcatc tgcaccggag cctgtcaacg tcatgtcttt caatattcgc   120
tatgataatc cggaagacag tctggacaat tggagataca gaaaggatcg tgtggcaaat   180
gctattcatt tctacgacgt ggatatattg ggtacacaag aagtgcttca taaccagttg   240
gaagacttga agctgcgttt gccggaatac ggcgtggttg gagtaggccg tgaagacggt   300
aaagagaaag gagaatacag tgcactttgg tataagaagg atcgtttcaa cgtgcttgat   360
tcaggatatt tctggttgag cgaaacaccc gaagtagccg gttcaaaagg ttgggacggt   420
gcttgtgagc gtatcgcttc atgggtcaaa ctgcaagata aggtttccga taaagaatat   480

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tttgccttga atacccatct ggatcatgtg ggggggatgg cacgtcgtga aggtataagc    540
cttatgctgg atagagtgaa tgagttaagt gatggattac cggtaattgt gaccggagat    600
ttcaattcag aaccggaatc agatgtgatc aaacacgtca cagattctgc caatccggaa    660
catctgacgg atgctcgcca ggcatcttcc attgtttatg ggccttcctg gagctttcat    720
gatttcggaa agattcccta taacaaacgt ccgttgattg actatgtatt cgtacgcaac    780
ggtcttaaag tcttgagata tggtattttg gctgaaacgg aaaacaacgg ttttttgtca    840
gaccatacgc ctgtactggt aacggttgaa tag                                 873
```

<210> 3036
<211> 1170
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1026)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3036
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actaaaacaa tatttcccat gctgaaacac attttgttta catgcttctt tttctttacg     60
gcaattccgt tgctgaaagc tcagggctgt ggcaatgatg aaaaatatca tttgccttat    120
aaaaacacgt atgtaaaaga acctttggta gccgagaacg agtaccgcat agccaaaccc    180
gaaaccgttg aaccgaagag tttcgaagaa gcccggcaga ttcttcctaa tcctatttgg    240
gccggacacg aaaaggaact tgaaatgtat tggagagcat gggaaatagc tgttggcaat    300
atccgtgctc ctcaacaggg gtcaggtttc gtatcaagtt atctggatac ggcttacaac    360
ggtaatatct ttatgtggga ttcttctttc atcctaatgt ttgcacgata tggtacacgc    420
ttcttccctt tccagcgtac attggacaat ttctatgcca agcagcatcc cgatggtttt    480
atctgccgtg aaataaaggc cgacggagcc gattgcttcg agcgttacga tccggtcagc    540
actggtccta acttgatgcc ttggtgtgaa atggtttatt attaccagtt cggtgatacg    600
gaacgcctgc ataagatatt cccggtactt tgtgcgtatt acaagtggtt gaaactcaac    660
cgtacgtggc gtaacggaac ttattggtca agcggatggg gaaccggtat ggataatatg    720
ccccgtgtgc ccgaaggtta tagtcctatt tacagtcatg gacatatgat ttggctggac    780
accaatctcc aacaactgtt tacggccaac ttgttacttg agatgggatt ctatctcgaa    840
cgttggcagg aaatagagga attcgaagat gaggctaaga tgttagggaa gtatatccat    900
gataatcttt gggatgaaaa gaccggtttt ctgtatgacc aatatgctga tggtacactc    960
tgcaaaacaa aaggaatagg tgcctattgg acattgctca ctgatgtgtt ggatgataaa   1020
cagctngacc gtatggtgaa agaattagat aatccggcaa cgtttatcgg aaatttcgta   1080
ttccctcttt gtcggcagat catcctaagt ataaagagaa cgggcgttat tggcaaggtg   1140
gcatatggcc gggtaccaac tatatggtga                                    1170
```

<210> 3037
<211> 2148
<212> DNA
<213> B.fragilis

<400> 3037
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ccaaataaaa taaccctaat gaatatcaaa agattttttgc tattggggat aatggcccta    60
tacgccatta ttccggcatg gggacaagcc cagaaagtag aaatacgcgg aagcgtaatc    120
gatgacgagg gagagcctgc catctctatc gtaatcagag atcagaatga aaagggagat    180
gtatacggca tcacagacct cgacggaaag ttcaagatca tggcagatcc caatacgacc    240
ctgcatttct cgggatttgc ctacgcatca aaaacggtaa aactaaaagg aaagacaacg    300
ataaacgtag tgatctcata cgaagcatcg atgattgacg aagtggtgat caccgccaaa    360
aaagtggtgg acaaactgct accggaacca accgacatcg aaatcgtcgg aaatcaatac    420
atcatccacc ctaaagtaaa aattcccaaa gaaatgtata agccgaatac acgtatcgta    480
gtgcaaccga tgttggtgaa tattacccgt aaaacacaga gcctgttccg cccggcagtg    540
gtgaccggaa aggagtatgc catcacattg gaacgaatga tggaattcga cctgagcaga    600
gatccgttag cagctttttca ggagaaaacg caaaagattg ataagaatga agtgattgcc    660
tacgtagact ccctctatat ggataacccg gacgatgaat gccggtgtga catctacatg    720
tatctggtag aatataaaaa actggcatac aaagatacgg tagtgatagc caaaggtacg    780
```

```
gtaaatccga tgcgtttctt tacgtaccaa gcagatggca tgaaaatcag agatgaaaaa   840
tacatcccta aacctcaaaa acaacaaaga ggcgacagag gagaagtgaa gctgaacttc   900
ctgatcaact cggcaacgat agacgaaaaa gatccgaaca accaaagaga attggagaaa   960
atgcgcttgc gcctgcagga aatagaaacc gatccgaact cggaattcct gtcgttttcg  1020
gtcaaagggg tatcttcgcc tgaaggtccg tatcaatcga atctgaaact ggcacaaaaa  1080
cgcacggaca gtacgctgaa acgtatcttt ggttttctga acggaggtac tataaacgca  1140
ataaaagaca gtacatatac agaaggagtg gtggcctcat gggaagaggt agcagaattg  1200
atggaacgcg actcactgcc tacagacaag ttacgggaaa tcatcaattg ctatccggac  1260
aacatggcct cacagtacag ccggatccta cgactaccgg aatatcggaa tgtcattcta  1320
acgacttact taccacggct gcgccgggtg gaatatagtt tcaactattc ggtgatgaga  1380
ttgctgaacg atgaagaaat acgcataatg tataaacagg actataaaaa attggtaccc  1440
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aagaaagaac tgaaggaaaa agcggagaaa acaaaagaaa aaaacgaaac ggaagacacc  2100
gaaacggaag agagcggctt gaatgaagaa aaaacgataa agcaatga              2148
```

<210> 3038
<211> 1464
<212> DNA
<213> B.fragilis

<400> 3038

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gctgtggttt ttgcgcagca acaattctct tttaaagatg ggaagtttaa aattgcccaa   120
tttacggatt tgcattggac accccgatct ctggcgtgta ctgaaacaga agcgaccatc   180
tgcgccgtct tgaaagcgga acatcctgat attgccatat tgagtggaga tgtagtaact   240
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ccttttgtcg ttactatggg aaaccacgat gcggaacaca tggcaaagga cgatatctat   360
gatcttcttc tggagtctcc ttattatgcg ggagcaaaag gaccggaagg catcatggga   420
tgtggtaatt gtgtgatacc ggtttatggc tcgagaaaca gagagaaagt agaagcattg   480
ctgtattgta tggactctaa tgactatcag ccggacaagc tttacggtcc ttacgactgg   540
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aatggaaacc ctgtgcccgc attggctttc ttccatatcc ctttgcttga atacaacgag   660
atagcaggtg atggaaagac tttcggtaat aacagggaag gtgaagtcgc ttctgcgaat   720
atcaattccg gcatgttcgc ttcatttatt gatatgaagg atgtgatggg tgtatttgcg   780
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gggcaggaat tggaagtagg attctccgga ctggattttc cggaagttcc tctgcaggat  1440
gaaatgctgt tcttaccgaa ttaa                                         1464
```

<210> 3039
<211> 570
<212> DNA

<213> B.fragilis

<400> 3039
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tccggcaacg tttatcggaa atttcgtatt ccctctttgt cggcagatca tcctaagtat      60
aaagagaacg ggcgttattg gcaaggtggc atatggccgg gtaccaacta tatggtgatg     120
cagggacttg taaagaaggg atatcataaa ttggcccggg agattgcttt gaatcattat     180
gccgaggttc tggaggtata taaaaataca gggacatttt gggaatacta ttctccggag     240
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attgccgaac tgatagagtt tattatcggc attaggggag attatgtcaa tcaacagata     360
atctgggata tgaatttgac tgaaactaat ggaatagaac gttatccttt cggttcggaa     420
ggaatcataa acctgaaagc tgaggcacgt cgttctgcaa atgatgaacc acgtatcgct     480
gttgatacga atatcggttt tgagttgctg gtgctttatg gtggtaagga aaagaaggtg     540
aatgtaactc ccggtaagca tacctattaa                                      570
```

<210> 3040
<211> 543
<212> DNA
<213> B.fragilis

<400> 3040
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aatgttgtct ttgtgttatg tgcttttttgc tgtctttatt gtaatatgta ctttgttttt     180
gtttctttct gtattcttct aatgctgatt tacgggcttt tttccagctt cccagtcagt     240
cgggcaggaa aaacaaattc tatcgcaggt aagatataca atttgacaat tgtcagattc     300
ttgctccgac cgtttatcga aagtataagt caatctcttt tgattaaaga tgcagcaggg     360
atgtattctt atattcctaa gcaagcacaa gtccgcattc gtttcatgtc tttctataat     420
gtatatactt ttcttatctg tcacatgggg cgtgagatgt cgttttcacc ttgtccgggc     480
tgttcagaga cccggttatg cgatattacg tggtttccat gccctctagg ggaagccgga     540
taa                                                                    543
```

<210> 3041
<211> 192
<212> DNA
<213> B.fragilis

<400> 3041
```
caggctccgg tgcagatgcc tgttgtttca ctaggccgca tgatgcagcg aaaaatggca      60
aaactaataa aattattttt tccatggcat tatgtcatta attattttac aaacaaggct     120
gaagtaggaa tcggtgctaa ttcctttgca gaaggaagtt tccagaacca gcttaaatgc     180
tccccttcat aa                                                         192
```

<210> 3042
<211> 1656
<212> DNA
<213> B.fragilis

<400> 3042
```
actaacttat taataaaaac agttatgaaa aaatatatac cattattggc gttatcggca      60
ctaacctttt gctcttgctc tgactttta aatgtgcagc cggaaggtaa tcctgccact     120
acatcctatt ttttgaatga tgaacaagcg attgatgcca ttgacggact ttatgctcct     180
attcatcagg aaaaaggctt ggacgtgag ttgttttggg aacaaggtgc tgcttgtgat     240
atagtatggg ctaaatcacg tggtttcaac tcgttagcta cctttaacta taacggtgat     300
gaaagtccca tcagtggtgg atttgactta ttctaccaaa atatggctcg ttccaactgg     360
attatcaagc agttgcttgc caaagagaaa aaaggtggac taagcgatgt agaacatcgg     420
agtttgggtg aagcttctt tatgcgtggc atggcgcatt tttggattgc ttaccgttat     480
ggaacgaaag accaaggtgt accttttgtg cgctacgaag attttgaggg cgattatgat     540
aattccatac ctccacagca ggcttctgta atagacaatt ataagtttat tatagaggat     600
atggataatg ccatttctta tttgccgaaa ttcgaagaat attcagatga tgataaggga     660
```

```
cgtgctcaca aagctgccgc tgtagcctat aaagctaagg tatatgccta ttgggctaca      720
tgggatgaaa ctcaatggaa caatgtaatt gctatggtta attctctgga aactgattat      780
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ttccccggag tgattttgga agataaagct tggggtgtgt ataatggctg gggccacata      960
aagccttctt acgatattta tgaagaaatg gcaaaagacg gtgctggtaa tgatcgtctg     1020
gtgcgttcta ttttggaata taatcaagag ttcgaatttt ttggtgagaa acgtaaattc     1080
tatactgata caaacttgga tgtaggtttc cagattaata aatatatgga cccgttcaaa     1140
cataaggatg ccgatactaa aggatacgtt aacacaaatg gcaactggcc cactgctcgt     1200
gtaaatttcc cattgattcg ttttgcggaa atgctgctgt tccgtgccga agcctattta     1260
atgacagatc aacctggtaa agcgaaagaa gatttgaatc gtatccgcag acgctctaat     1320
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gttgtaatca aagaattggc tgcaaaagaa ttgaatgccc atcctcgtat ccgtaagtat     1500
gcggaccgtt ctaatccgga gtcaactttt acaatagagc catatgccga ctatctgaat     1560
aagactcctt atcaagatta tatgatggta tttccttatc cggctgaaca aattactaaa     1620
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```

<210> 3043
<211> 786
<212> DNA
<213> B.fragilis

<400> 3043
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tggcgcaggt tttcggtaaa gacccggatc gcttcgtcat cggcctgttc ttttactgag      180
ggaggcaaat tcggtttcga tggaaggttt cagcagacgg cggtaggcat ccgcgctgat      240
gacagcctgg cgggcaaaga gattacgcac tgcattacgg gcacgttcgt cttcgctcac      300
ctcggtgtcc atttgcattg gagcgatttg ctcttaagcg ggttgttttt cgccatggtt      360
gccattgtcg aagaaactat gatgcgcgga tatgttctgg gacgtttgtt gcgtacgcgt      420
ctcaataaat ttatttctct tctcatctct tccctttttgt ttgcgttgct tcatctgatg     480
aatcccaatg tggctttttt acccatgctc aatctggtgt tgggagggtt gttactggga      540
gcttcttatc tttacacccg taatctttgg tttcctgttt cgcttcattt cttttggaac      600
tggattcaag ggcccgtact tggctatgaa gtcagtggca atcgtttctg tgaaaccttg      660
ttttcacttc gcctgcctgc aaataatctg attaatggag gggcatttgg ttttgaaggt      720
tcgttggttt gtaccgtatt ggcaacactc tttacactat tcattatctg gtggttcgaa      780
caataa                                                                786
```

<210> 3044
<211> 1599
<212> DNA
<213> B.fragilis

<400> 3044
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aaaataacat taaaaataga acgaaaagaa tgttttcgct tgcgatcttt gtcatctaaa      60
agattttcta taacttgcca caagtttatt acaaagcaga acagtagaag tatgaacata      120
aaagagatac taaaccaatc cgaagggcgt agattggaat ttaaggcaga gttgccggag      180
cattccgatt tggctaagac ggttgtggca tttgccaatg atgcaggtgg cgacctgtat      240
attggtgtgg cagatgatcc tcgtgaagtg gtaggattgg atgaggacaa attggtgact      300
atcgaggaga aaataagtaa tattattttt gaccgttgct atcctgcgat attgccggaa      360
ataaaattta taagcgaaga aaacaaacac ttgattcagg tgactgtttt cagaggtagc      420
acgccacctt attatctcaa agagaaaggt aagttacaag ggacatttat tcgtgtaggc      480
tcggccaatc gacttgcgga tgaagctatc atctcggaat tggaacgtcg gagacgaaac      540
atctcttttg atagcgaagt ataccagat aagcctgtaa atgatttgaa catagatggt      600
tttaaggcta tattcaagga gaaacggggg gaagaattat ccgaccaagc attaaggaaa      660
ttagacttgg ttaaagatat gcaggagca gaatatccga ccaatgcgtt gattctattc      720
tcggacgacc cgttgcgtaa ctcgttgttt cactatgcaa aggtggagtg tgctcgtttt      780
aaaggtgtta gtatcgatga tttcatagac caaaagagta ttacgaccaa tattgccaca      840
```

```
caagcagagg aagcatacaa ctttgtgtta cgccatatca ataaaggtgc ttcggttgag    900
ggagtgtaca cagtatctcg ttgggagtat cctgttaagg caattcgtga ggcgattcgt    960
aatgcggtgg ttcatcggga ttattctctc acaggaaaag acgttaagat tgcgatctat   1020
gatgatatgg tagagataac cagtccggga cttctaccac catcaatcga ctatgctgca   1080
atggaaagcc gtcagagcga tgcacgcaac aaagtaatag cccctgtttt caaacgtctt   1140
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ttgcagcaag agttgcagca agagttgcag caagagctac gaaaggcgac attgtattcg   1380
gaggtattgc gttgtatagt aagtaatgct ttatcaaggc aagatatatc ccttgcattg   1440
ggacaaaaga aagtatcggg acaattaaat aaagttattc aaaaactgat tgccaacaac   1500
ctgattgaaa gaactatccc tgagaaacct aaccatcctg ctcagaagtt tcgactaaca   1560
gaacgtggac agttatttct tggtttactt gctaaatga                          1599
```

<210> 3045
<211> 225
<212> DNA
<213> B.fragilis

<400> 3045
```
gtggccagtt cccggaaagg gaataaaaac ctaaagcatt ggaggtattg gatattccaa     60
gccctattat acacctgtac tgaaaagctg aaggttctgg tgaatggggt tttacttcgt    120
tgtgatgctg attatttatt cattcgcaat acgggtgaag gatacatatg ggatgaaaca    180
ccgattttta taagaataat gccccaaagt tggcaacaaa aatag                    225
```

<210> 3046
<211> 207
<212> DNA
<213> B.fragilis

<400> 3046
```
gaaagcagat ttgttaacga gcttggaaac ggaacatcaa ggctcaccat tccggtaaat     60
gacctgatga actattatgt ggagtatttt cacataagca aacagaacgg gttggttgaa    120
tattgcaata aggcgattgt tactttacaa cagaaattgg ataaagaaaa agataatttt    180
aataaaagaa tcaacagttt gctatag                                        207
```

<210> 3047
<211> 234
<212> DNA
<213> B.fragilis

<400> 3047
```
tatgggaagc cagctcgtgg caggagcggc caacagcgtc atcaacgcca ccaagtcggc     60
ggcaagcaag aatatccgga aggtaaaggt gacaatcaag accaactacc gcatactgct    120
cagacagtcg aaagagtgag gaaggaaaga gcctgtcggg gctgtccgat gacagcagat    180
gctgcccggc tcctgaagga atttgatcag ataaagaacc taaaaacgat gtga          234
```

<210> 3048
<211> 1611
<212> DNA
<213> B.fragilis

<400> 3048
```
aatttgaaaa cgcataaaga agtaacttca aataaaagta aaacactgga ttttgtaata     60
agtaaaacaa tgaaaatatt tagatatata ttgctcgcct cgcttacctg tacgcttttc    120
tcatgcggcc cggatgaact gataccggaa tccgtgccac cggtggtgaa tcccggggat    180
aaggacgagc cgggtgaaga accggaggag ccggaagagc ctgcaaagat acagctgggc    240
atcacggcat cgctgcagaa catgcagcag accaggggaa tcatagaggc ttttgctccc    300
ggccatgaaa tgggagtctt tgtcggaaca agtcagacag atgaagcagc aggtataaaa    360
```

```
aacgcctcct atcttttttga tgggaaagta tggaatgccg gacaggatgt accggtggaa        420
gcggacgccg atgtggtggc atacctgcca tataaccggg aagtgaccga tttcaagagc        480
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gatgtaccga cggccagcct gatgatgcaa cacgccatga cactggtacg tatgcggctg        600
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acatcaggaa cagtcgacgc cctgaccgga gcggttacga aagattataa tcacggccgg        720
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ccggaagact acgaatttac catctggcca aattatactg catatggtta tgactgctac       1080
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tcaattcttg tatatcccgt ccctgacgag acctcatgga atctggtata tactttatcc       1500
aataagggag aaaaagccct gagaggcgaa ataaaagcgg tctgggagag ggaattcaag       1560
ctgaagtcca actcgtatcg gccaagtgac aaaaaaaaag gggctattta a                 1611
```

<210> 3049
<211> 189
<212> DNA
<213> B.fragilis

<400> 3049

```
gaaggagaaa caatagatgt attcatgtat gtatcggatt atttgtctct ttgcatcttt         60
ccttgtgtct tttttgcttt aaagatttat gataagcttt ccaaaaaaca aaaaaatgga        120
aaacaatatt cagaccgaga acaaggcaaa ataataaccg gatcaagtaa tccgcttttt        180
cccaaatag                                                                189
```

<210> 3050
<211> 201
<212> DNA
<213> B.fragilis

<400> 3050

```
atggaaactg cgtttgccgg ttatgggatg aatccggatg ccaaagccgc tgctcttcct         60
gaacctgtct ttcaggggac aggtgagcgg aatcctgtcg gatactccgt accgggagag        120
tatatcccgg tagctttcca gtgtctccag acgttcgcat ctctccagtg ccttgtcgag        180
cagttcctttt ccgtcgtttg a                                                  201
```

<210> 3051
<211> 324
<212> DNA
<213> B.fragilis

<400> 3051

```
ccggcaaacg cagtttccat tcaggtattg acatgggcgt ggagctggca gccccccggtt        60
tacgccaccg ctcggggaac ggtttctttc gcgagaagga aaggggggta cgaaagatgt        120
gtcattatac gccattctta tggctttgaa acgctgtacg ctcacttagc cgcgtattac        180
accacagaag gtcaaaaagt cgacagaggg ctgtaatcg cgtttgcggg aagcacggga        240
aagagtacgg gctaccacct gcattatgaa atcagaaaaa acggtaaacc tataaaacca        300
tactggtatg ctatgacga ttga                                                324
```

<210> 3052
<211> 417

<212> DNA
<213> B.fragilis

<400> 3052
```
tcgggaagag cagttcgaga aaaaagcccc cggcctgtta aaaagcaacg ccaatcactc     60
attaacatac agatgcgcat caccgcacga ccggggggcaa agaccctcgt cgcggaatgc    120
gcttttatc tgtatatgaa tgattggctt tgcaaagata aaaaaatatt cgctatgaca    180
ctgtttgaga ttctaaattt taatagggaa gtcctggaac gtctggccgg tatgggcttc    240
aaaccggatg actataagta catcgacctg tataaggagt atgaaaggat gcgctgccag    300
ggtgataaag tgacgtattg tgttgcggtt ctttccaacc ggcacggcgt ttccgaacgc    360
aaaatctatg agatcctggg aaggttcaaa aaagagtgta cgtttcatgc agtataa      417
```

<210> 3053
<211> 327
<212> DNA
<213> B.fragilis

<400> 3053
```
aagggagggc aaagcggagc tgatgaaatg cctgtacctg gaggagaggt attttaccga     60
gtttctgaag ctgtcgggac aggaggaggg attatgacca cccttcagt tatcagctat    120
atagagagga tcaaccgggt gtaccggctg atccggatgg aaaggaccgg aagcctggac    180
gaactggcct ccttgctgcg ggtaagcagg cggacaatca acaattatct ggaggagctc    240
cgcctgatgg gtgccgagat caagtttagc agaaggcaaa accccatatt atttcaagaa    300
caaattcgta ttgcacgcga cggttaa                                       327
```

<210> 3054
<211> 1239
<212> DNA
<213> B.fragilis

<400> 3054
```
acaacaacta aaaacaaaaa atatacaatg gaaaccatac aggaaattat agatacaata     60
aaacaatggc cggccaccat atggtggggtt atgggagctc ttttcattat ctcctggttt    120
tgggatactc caccgagaaa gaaacgaaat aaagataaaa tgacggatga taagaataac    180
gacttaaaaa gttcaaatat gactgataaa aaagaattta aaggcaacct gatgaaagaa    240
ggcattttg tgtgggtcgt attcgcaccg gatggtaagg ccggtttata tatggatggt    300
gagaaacacc ttgaaaatgg aacatatgcc tatggaaacc ggctttccac ggatgtatcc    360
tcctttcatg aaatctgtaa tctggataac aaacccgtgt acctccactt tccggaacac    420
gggatttcag tacgctaccg gatacgcctt cgatattccc gaacagacga tgccggtata    480
gaaaggtcgg aacatgaacc ggaaacatgc cttcctgcat ggattgtaag agggaaaaca    540
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ggaatcagca gtaatccggc atccctgaaa ggaaatttct ttgtaaaccc cggggaggga    780
aacctgacgg gagagggagt tgtcatgtgg accgtattta ccggggacgg aaaagcggca    840
ttgtatatgg atgaccggtg gcatcttgag aacgggatat tggcttatgg cgaaaggctc    900
tcccatgacg tgccggtttt acataagatc tttaacctgg aagaaatgct cctgttccgt    960
catttcccaa aacgggggagt tccgcagagg atcagaatgc agctgcggtt tcccggaaca   1020
ggagaggcgt gcaaggagcg gccggactgt aatcggggaa catacttcct ccccgcatgg   1080
gtcgtaccgg aagaaagcgg ccggatcagc ctgtaccttc aggaacaact gtccggagaa   1140
tgtgacattc aggatataag ccggctaccg ggagcaccca aactgcagcc gaatggagtt   1200
ccggtcaggg tagagatact gctacaacag gaaggctga                          1239
```

<210> 3055
<211> 189
<212> DNA
<213> B.fragilis

<400> 3055

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agaattttaa aactatgtga tatgatacag gaaattatag atatgataaa agagttatcg    60
ggaagcgaca tactctgtct aagcttctat tgtggattta ttctaatact gtcacacaga   120
agtaatgaaa aggcatctgt gtatggagaa gaaaaagtcc cggataatag tccggaacct   180
gaaaagtaa                                                            189
```

<210> 3056
<211> 408
<212> DNA
<213> B.fragilis

<400> 3056
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agccgacaaa atattaagga ggatagcccg atgaaactac tgctggccct attgctttcc    60
tgtctcccct tcaatggatc aaacgacgga aaggaactgc tcgacaaggc actggagaga   120
tgcgaacgtc tggagacact ggaaagctac cgggatatac tctcccggta cggagtatcc   180
gacaggattc cgctcacctg tcccctgaaa gacaggttca ggaagagcag cggctttggc   240
atccggattc atcccataac cggcaaacgc agtttccatt caggtattga catgggcgtg   300
gagctggcag ccccggtttt acgccaccgc tcggggaacg gtttctttcg cgagaaggaa   360
agggggtac gaaagatgtg tcattatacg ccattcttat ggctttga                 408
```

<210> 3057
<211> 210
<212> DNA
<213> B.fragilis

<400> 3057
```
aaacgatgtg atatggaaac tatttgggaa aaagtggatt acctgggccg gatattatgc    60
tgcattataa tgggaattgc atatatactt ataatgatag cccctcttta tgcttcacgc   120
cacgaacagt ctgggcaaag aagtgatgaa aaggcatttg tggatgaaga agagaaagtc   180
ccggataatg gtccggaacc tgaaaagtaa                                     210
```

<210> 3058
<211> 894
<212> DNA
<213> B.fragilis

<400> 3058
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gaattttgct gcccggaaat acaaacacat atattacacg acaaaatgat tatgaaaaag    60
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gaattcaaaa agatactgaa acattttgat gacaaaacga tatttgtcga cctgttcggc   180
ggctccggcc tgctctcaca catcaccaag cgtgaaaggc cggatgcggt ggtcatatac   240
aatgaccatg acaactaccg cggacgtctg gaaaacatcg gccggaccaa tacccttctg   300
ggagatctcc gtaaaatagt cgggatatat ccccacaatc agaagattac cggaaaaatg   360
cgcgaagctt tccttgaacg catccgcctg gaagagacaa ccggtttcgt ggactatctc   420
accctctcca cctccctgct gttttccgga aaatacgcac aaaacatgga ggaacttgaa   480
cacttgtgtt tttataacaa gatacgtcag gctgactacc ggtgtgacgg ctatctggac   540
gggcttgagg tagtctgcta cgactataag gaactggcag agacctatag ggtccttccg   600
ggagtggtct ttctggttga tccccccttac atgggaacag acatcagtac gtaccggatg   660
gactggaagc tggggggatta cctggatgtc ctgccggtac tgaaaggaca cccgttcgtt   720
tatttcacct cctccaaatc ccccatactg gatttctgca aatggatgga ggaacatccc   780
ggaacaggca atcctttcaa ggggaccggc cgctctgcaa ttaccgcacg gatgaattac   840
aactcctcat ataccgatat catgctttac aacaatatgg cttgtactgc ctga         894
```

<210> 3059
<211> 816
<212> DNA
<213> B.fragilis

<400> 3059
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tcaaggagat gcaaacgtat gaaaacaatt acaacagcat gtgtgaacca taagggaggt    60
```

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gtcgcaaaga caacctcgct gctgaacctg gcagccggga tcgcacggat gcataagaaa    120
agggtctgca ttatcgatgc ggatccgcag gcgaatacga caatggcagc gttcggggag    180
gaaatggcaa gtcttccccg ggaggttctg ctcgagagtg cgctacagga ctgtatgcag    240
gacactccgc cgaagttaaa gccgcaaaag tggctggaga aggtggacat actgccggcc    300
tccctggatc tggcggctac ggaagtgatc atgtacacca cacccggaag ggaattcctt    360
ttcagggaaa tagtaaaggg actggaagag aagtatgacc acatacttat cgactgtccg    420
ccatcattgg ggatcatcac gcagaacgcg ctgatggcaa gtgattacgt gatcatacct    480
acggacggga attacttcgc catgaaagga attgaaaaga tacactatat catcggactg    540
ctcaaaagga agctgggagc cgaagtcagg atactcggat actttatgac caagtacaat    600
gccaggagaa agctggatgt ggatatcagg gagagtctgg taagaagttt gggagatggt    660
gtctttgaaa cggtaatacg cagcaatgtt gccttgggag aggcacaata caaggcacag    720
agcatatttg actatgcgcc ttcgtcaaac ggggctgatg actacaggga gctggtcaag    780
gagttcctgg gcagaattaa aaaaataaat aaatag                              816
```

<210> 3060
<211> 999
<212> DNA
<213> B.fragilis

<400> 3060
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ccagcaatac gagctcttat gacacgggaa gggaaaagca gaacagccat actggcgggc    60
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agcaaggagc cggaaacggg tgaggtgatc ctcagaacgc ggatcaagga gagttttacg    180
ctcgatgaca tgctccaaaa agtcgggaag gagaacacaa gcaaatccgc ttccctttca    240
ggtttcgacc cggtaacgga ggagcctgcg gacacggccg ggaatgaaag ggagatccgg    300
cgcatacagg agctgatccg ggataacgag cgggagctcg gagcgggaat tacggtcccg    360
gtacaacagc cggttgcttc cgggggaaag gaaaaacctg ccttgcagga aagaaggaa    420
gaggaagtac ggcccgggca gcgcaaagcc gtggatagtg tgccccgggc accggcccgc    480
aggggattca acacggtacg gctcgtcagg caggaagaga ggaatgccat caaggcgttc    540
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tgcctgaccg atgacggaca cgcatccgc aaagggactc ccgtattcgg ggaggtgacg    660
ggcatcaatg gtgagcgtgt cctggtaaag atcacctcgg taaacctggg tggaaatata    720
ctccccttg ataagcaggt ttattccgag gacgcaatac aaggaatcta tgtaccgggc    780
aatgtgaagg cggagacagc acaggaggcc ggagcggcgg gaataagcgg cgcgaacacc    840
aatatctccg gaggatttga tatgggaagc cagctcgtgg caggagcggc caacagcgtc    900
atcaacgcca ccaagtcggc ggcaagcaag aatatccgga aggtaaaggt gacaatcaag    960
accaactacc gcatactgct cagacagtcg aaagagtga                           999
```

<210> 3061
<211> 294
<212> DNA
<213> B.fragilis

<400> 3061
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aagaaaggca ggattatgaa agactttaca tcgaaaggaa tatccctgga aaacatggtg    60
ggagaaaccc cgggaaaaga aaaggtatg acaggaaaaa catcacccaa aacgaaccag    120
accgttgcac tgacggaaga tctgaaatgg gagttacgga cgttcgcttc ggaccatcgc    180
tgcaggggag tcaagacact gcttgaacg atgatagaat gtttcgtcag ggaagacggt    240
acgcttgacc gtgacaagtt agaaggcttc tggcgggaat atgtcgaaaa ataa          294
```

<210> 3062
<211> 624
<212> DNA
<213> B.fragilis

<400> 3062
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aatatgaaaa gaatacttac actgatattg tcgttttgtt gcctgctttc ttttgtaagc    60
tgcgaaaaaa aggaaattgc cgacactttt gaagcaaaca tccggaaact tcatggagat    120
tacaggctga ctgatatcca ttggcccggc ctggcagttg acctgaacca tgacggtata    180
```

```
gggcactggg cgctattata tgaattccag aataagatcg gctattatga gcctgactat    240
accgccagcg tatctgacgg catggtattt tctcacgatg aaacctgggc aaggcctgca    300
accgcattca atctgaccat tccatgtccg cgttatattg tctcagaggg gaaatgggta    360
tgctcaggaa tccatggcat ccaggttact ttgcgtgctg atgtggattc cttcagtctg    420
cagtcaaatt gcagcaggat atttcccgca tacaatgacc gggatgacgt tttcctggcc    480
aacatcaaag atatcagcct ggttgtcctg tcatatgatg ccgcgtcatt cagaatcggc    540
gtgcattgca cactccctta cgaccgtcct gacggaacac aggagctgaa cgagaattat    600
ttgtattacg agtattcaag gtag                                          624
```

<210> 3063
<211> 783
<212> DNA
<213> B.fragilis

<400> 3063
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gaaaagaaaa gcagctgttc attgatcttc cctgccggta tcacctacgt cgattacgga     60
agcacgaacg tggaggtgga caagcccgag ggggtggata atatcctggc cgtaaaagcc    120
gtccagccct ataaggagga tacgaacata tcggtcgtac ttgaaggggg aaagttctac    180
actttcgacc tgcgctatgt gcccgctcca gagcgtttca gcttcgtcat tgacaaggag    240
gatacgcaga gggtggccat actcgacgaa aaggaacgct cttacggaca gaaggaaagg    300
atcaggaggg ctatcgcgaa acgtaccccg ctggatctgg gactgaagga caagaattcc    360
ggtgtggagt tcgaggtcgg aaatatcttc atcgacgggg atatcctgct gttgcgcatg    420
accctgataa accgcacaca gatcggttat acgacggatt tcatgcggtt ctacatccag    480
gatgccaaga tccgcaaaaa gacggcggta cagcagctcg agcagaacat cctgttcact    540
ttcgattatc cggaagaagt accggcacat gaaagccgga cattcaccgt ggccatgaac    600
aagttcacca tccccgataa gaaacggctt atcatcgaga ttcaggagaa gaacggcggc    660
cggcacttcc tgtataagct gaagaataag tcgctcctga cggcggagga agtattcaga    720
agcagaaagc aacaggaaac ggaggatgaa gccgacaaaa tattaaggag gatagcccga    780
tga                                                                 783
```

<210> 3064
<211> 405
<212> DNA
<213> B.fragilis

<400> 3064
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gtagatatga gactaaaacc aatttacatc accaccctgc ttctcctgtt tttcctttca     60
gggagagcgc agaagatcga ggaactcacc gcagtccccc tgcagatcgg gtatgaaaag    120
accctgcacc tgatcttccc tactgaagtg aagtattaca gcatcggagg ggattacgtc    180
atcggtgaga aagtggtcaa ttgcccgggg atcatacgcc tgaaagcggc ggaagagaac    240
ttcccggggg aaacaaccct gtcggtggta acggccgaca caaagttcta ttcgtactcc    300
atcagctaca acgcacatcc ggcccagagt tatgtgcgta taggcggaga agctcccgca    360
ccggaatacg ctgccggtag gaaaagaaaa gcagctgttc attga                   405
```

<210> 3065
<211> 354
<212> DNA
<213> B.fragilis

<400> 3065
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aaccatactg gtatggctat gacgattgaa caggaaatag aacagctggt actgaagtgt     60
atcgcattgg acgggctgaa ggcctgcccg aaagaccttg ccttccttga gaaatacgga    120
ctgaagaacc tgtatttctt ttccctggaa tacgcgatgg aagggacgga tgcgacggtt    180
ctcgacagta aggcgaaagg gttgatcaga tggtacctct attcgacgga ttttcccctg    240
ctgcggcaga gtatgaaag ggagggcaaa gcggagctga tgaaatgcct gtacctggag    300
gagaggtatt ttaccgagtt tctgaagctg tcgggacagg aggagggatt atga          354
```

<210> 3066
<211> 195

<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (42)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3066
tcattttggg gtaaaagagg cattgaaaag gaaagtgttc cncgggtaca ggtcggcggg   60
atagtttggg tagaaagcca tatagtgaac ggtaagttta tagccagtaa acttggggtt   120
aaacttacac cgccaaataa tcccggaata ccccataaac gtcggggttc aatagcatgt   180
attcaaatgc cataa   195

<210> 3067
<211> 198
<212> DNA
<213> B.fragilis

<400> 3067
caggccgggg gctttttct cgaactgctc ttcccgatta aaatccctg gaaattcctg   60
ctttcatatg gctctatatc tttaaagacc gcaagatata acacatggtt gcaattttat   120
tgcgctgtag cttttcccat gaaagaaata cgttatttaa ctaagtattc tactttaaag   180
agtatattac taatatag   198

<210> 3068
<211> 1182
<212> DNA
<213> B.fragilis

<400> 3068
caaaagagta tgatacatcc attattaaca accattaaaa aacgattcat tatgaagaaa   60
gtaagatttt tactgttggc cgcaatggtg gccatgttta caggatgcca gaaagaagtg   120
gtggaacagg agttggataa caacaaaccg accccctaccg gtgatacgcg catcatcatc   180
gagggagaag ggatgatagg tccggcaacc agatcctcgg acgggaaagt ggagtttgaa   240
gggggctatg caaccggagc agggctatat gatggtaaaa aagccgttcc agtggaagcc   300
catcctgatg ccggatatga agttaattat ttctatggcg gtccggaaaa ccaacctaaa   360
aagtatgact atgcacagtc aggaacatcg gcttttaatg tttatttaga aggccaggat   420
cacaccttcc actgtggatt caaagaaaag aaacgtgatc taacagtgaa tgccggaacc   480
ggaggttcgg tgtccccatc aggtacaaac agctaccgcg tggagaagcc gatcagcatt   540
acggccaccc cggacagcgg atatgaattt gccggttgga cagttaccca aggtgatgta   600
acgattgaga atcctggcag cccggctacc accgcgaccc tgcataatga taacagtacg   660
attactgcaa actttaaatc cggcgctgag ttggtattta ctgtacgtgc cagcgcaaat   720
aaaattgtgc cgatgccgac tctgggttcc ggtccttata ctgttgatta tggggatgga   780
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catacatact cagcagatgg ggagtacact gttacaataa agggaccggc tgcgactgct   900
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tctattttaa agaatacgat tgatataagt tgtgtaacgt cactggagga tgcttttagc   1020
ggaatgaaat cattggaaag catagaatgt gatttgttag aaagttgtaa aggaagagtg   1080
acaacttgcg ctaatatttt tgatcaatgt acaaatttgc ataccattta taatggattg   1140
tttgaaggct ttgataaatg cactgatttc tcattagcat ga   1182

<210> 3069
<211> 426
<212> DNA
<213> B.fragilis

<400> 3069
gagctcgtat tgctggtcat aggtacggaa gaagaaaccg gacgtatttt ccggaaagcg   60

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cggagtggca tggatggcgg taccctcact cagaatccgt actttcctga tgtcatcgcc    120
attgataatg ctcaggatgg aggagaacct gacatggtac tcctcaccgt cggcgcgtat    180
gtcgatgatc ttttcaaact ccgtcttgta dacaacgccg agttacagcg catcgccata    240
ggcacggtcc gcctggtatt tggcaaaaac ggcatttgcg tccggcttgt tgaccaggaa    300
cagggcacgg gcacggtttt cctgaaggga aaggcctgtc tagcttgttc acgaaatatg    360
cccttcctgc tggagtgcga ttttcaggag gtttctgtac aagaggccct ggctgattgt    420
ccttga                                                               426
```

<210> 3070
<211> 363
<212> DNA
<213> B.fragilis

<400> 3070
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agggaggtat tccacatttc cggcaaagat gttatccagg aacagttctc aaagcaagag     60
gatacatttt caatcgccct gcaattctca aaaacattac cgggtacagt agtaacatgg    120
gactgccgga aagttcccct gaaaaaagtc gcctttacgc attttgcgaa taaacgttcg    180
gggaccgtac ttatgttcag cagctcaaaa gtggaagcaa actcttgcgc atttacgcaa    240
tcatcaaaca atcctgccgg aattgataaa atattaggta tagccgagaa ggtagaatta    300
aactttacgg ccgaggtaca tcctctgaat gtatttgctg gaatagaatt aagggctgca    360
taa                                                                  363
```

<210> 3071
<211> 693
<212> DNA
<213> B.fragilis

<400> 3071
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caaaaaagat cacattttca tagtgttatt ataatattta cgtatatttg taatcaaaca     60
aaaatatcat atacacaaac aagaatacca aacttattaa ttatgaaaaa gctattatta    120
accactctgt tgatcttcgg aacagccatc gttcacggac aggacaaaat gcaatttttca   180
ataataggag gatatgaaca cttcaaaaaa gaaaatccac acaaccaaac tgccggatat    240
ggtttaggtt gcgagttcaa gtattatttc tataacagac tctatgctct ggccaacttt    300
catgcaggta tttataatga attcacacct cgaacagcca tggcggaaat aggcgaagtg    360
gacttctcaa tgcactggag aactcgcgaa tataaaggtg gagccggaat gggaatcgat    420
ttactaaaga cacagagaca taatatatac acgcaagcca catttggatt agccaaactc    480
aaacagtctg ttccggttat ccacagttat agaccaacag tggaaatggg aactaaaaat    540
acctacttac tccgatacgc cacctccatc tcaataggat atgattatcg ggttagtaaa    600
tctttcagta taggcctcaa ttatacaggc tggtgggtag cagacgtcgc atacaggaac    660
acgctaaatg ccaaaattgg ctataatttc tag                                 693
```

<210> 3072
<211> 534
<212> DNA
<213> B.fragilis

<400> 3072
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tttctatatc cggtaagtcc ggatactcct ttattcattt ataaaataac tcttatgaaa     60
ataaaagtag gttttggttt cgacgtccac caattggtcg aaggacgtga actttggtta    120
ggaggcattc ttttggaaca tgaaaaagga ttgttgggac attcggatgc cgatgtattg    180
gtgcatgcta tttgtgatgc cttgctgggt gctgccaaca tgcgtgatat cggttatcac    240
ttccctgaca atgccggtga atataagaat atagacagca agatttattt aaagaaaaca    300
gtggagctga ttgctgccaa aggctatcag atcggtaata tcgacgccac tatctgtgca    360
gagcgcccta aactgaaagc ccatatccct tcgatgcagc aagtgcttgc cgaagtgatg    420
gggatcgatg cagatgatat ttccattaaa gccactacca ccgagaaact tggttttacc    480
gggcgggaag aaggtatttc cgcctatgca accgtgctga tcaatcgcgt gtga          534
```

<210> 3073
<211> 786
```

<212> DNA
<213> B.fragilis

<400> 3073
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ggaaaaatgc ctatgctgat actttatct tgtgccaaaa ctatgagtga cgtttcgaag      60
acaaaaacgc ctctcactac atttcccggc ttccggaagg aggcagcgga ggttgctctg     120
cagatgtcac aattttcagt cgaggagttg gaacggctgt taaaggtgaa tcctaagatt     180
gctgttgaaa attatagacg ctatcaggct tttcactcgg agggtacacg ggaattgcct     240
gcattattgg cttatacagg gattgttttt aaaagagttc accccagga cttttcagaa     300
gaagactttt gctatgccca ggatcatctg agattgacct cattctgcta tgggttgttg     360
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ggcaacagaa cgatgtttga ttattggaag ccaatcctta cagaccggtt tattgcagat     480
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gattggaagc gggttgagaa ggaggttcgt gtgataactc ccgagtttca cgtctggaaa     600
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tatattctga agaaccggat agaatctgtt gaacaattga agacattcgc ctgggaaggg     720
tttgaattta acgaacagct ttcggacgag acaaaatatg tatttacaaa cggaaaaaca     780
gaatga                                                                786
```

<210> 3074
<211> 1434
<212> DNA
<213> B.fragilis

<400> 3074
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ggccaaaagt ttaattttta ttcgaataag aaaatgagca cagaaaacga agaatggcgc      60
gaagactcca agagtgagaa tacggacgcc ggccgtgatg gtaacagaag ttttaacaga     120
gaaggcggat acagtcgtcc ttcatacaat cgtgaaggtg gcgaccgtcc ttatcgtccg     180
agatttaata gtaatagtga agatcgtcct cagcgttctt atggtgatcg tccgcaacgt     240
ccttcatata atcgtgaagg tggcgaccgt ccctatcgtc cgcgttttaa cagcgaggt     300
ggtgaccgtc ctcagcgttc ctatggcgac cgtccgcaac gtccttcata taatcgtgaa     360
ggtggtgacc gtccctatcg tccgcgtttt aacagcgaag gtggtgaccg tcctcagcgt     420
tcttatggcg accgtccgca acgtccttca tataaccgtg aaggtggcga ccgtccctac     480
cgtccgcgct ttaacagcga aggtggtgat cgtcctcagc gttcctatgg cgaccgtccg     540
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gataacagat cgcagggatt ctcacgtccg atacgtcgta cgggggatta cgatccgaat     660
gctaaataca gtaagaaaaa acagattgaa tacaaagaac aatttgttga tccgaatgaa     720
ccgatccgtc tgaataagtt cctggctaat gcaggagtct gctctcgtcg tgaagctgat     780
gaatttatca cggcaggtgt agtttctgtc aatggagagg ttgttacaga gttgggtaca     840
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aaactgacac atccgaaata cctgaagaaa aaaatctatc atgtatattt ggataagaac    1140
ctgactaagg cagatatgga ccagattgca gccggtattc agctggaaga tggtgaaatc    1200
catgcggatg ccatcagtta ttctgacgag gtgaagcgtg atcaagtggg catcgaaatc    1260
cactccggaa agaatcgtat cgtccgtcgt atatttgaat cgttgggtta caaggtggtg    1320
aaacttgacc gtgtattctt tgccggactg actaaaaaag gattgcgccg tggtgagtgg    1380
cgttatctta cagaacagga agttaacttc ctccggatgg gatctttga ataa            1434
```

<210> 3075
<211> 627
<212> DNA
<213> B.fragilis

<400> 3075
```
aagataaggt tgggaaccac ttattcactg gatcatcccg agaaattctt gtcggaaaaa      60
gccatcgccc gccgccagcg tcagcagttg cctgtcgact ctaccgatct gccggtctgc     120
cgtcggtatg tggatgccat ccgcgacagg ggagtgaaga ttgtggctat gggaaaatgg     180
```

```
gataatttcg tcactgtgtc atgtaacgac agtgccgtga taggcgaaat tgccgcactg    240
ccttttgtgc gtgctaccga aaagatatgg gttgccccgt cgaaacctgc agcggaagat    300
aaacgggact ccctggcgaa cagtccgctc aagagtgaga actactacag tcctgccctc    360
cggcagatag aaatcagtta cggcgaaaaa ttgcatgaag ccggatttaa gggacaaggt    420
atgaccattg ccgtgatcga tgccggatat cataacgtgg acaagataga ggctatgaaa    480
aacatccgca tcctgagtac gaaagatttc gtgaaaccgg gaagcgatat ctacgccaaa    540
ggatcgcacg gaatggccgt tctctcctgc atggcgatga atgatcctta tttaatggtg    600
ggtacgggtc ccgaagcctc ttattga                                        627
```

<210> 3076
<211> 1014
<212> DNA
<213> B.fragilis

<400> 3076
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atcgtaaaaa ccgtaaataa aatgacatca caaaaatcac agaacagcaa tatgctgctt     60
gcattcctca ccctgctggg agttattgta ctggttgcag ttgtcggttt cttcatgctc    120
cgcaaaggtc cggaaatcat tcagggacaa gctgaggtaa ctgaataccg cgtctcaagc    180
aaagtgccgg gacgtatcct ggagttccgt gtaaaagagg gacaaaaagt ccaggcagga    240
gatacactcg ccatcctgga ggctcccgac gtaatagcca aaatggaaca ggctcgcgcc    300
gccgaagcgg ctgcacaggc acagaacgaa aaagccatca aggagcgcg tcaggaacaa    360
attcaagcgg cttatgaaat gtggcagaaa gcaatcgccg gtgtcgatat agctgaaaaa    420
tcatataaac gtgtcaaaaa tttattcgac caaggagtta tgccggcaca gaaactggac    480
gaagtcaccg cacaacgtaa tgcagccatc gcaaccgaaa agcggcaaa ggcccaatac    540
acgatggcaa agaacggtgc cgaacgtgaa gataaaatgg ctgcagcagc tttggtggac    600
cgtgccaagg gagctgttgc cgaagtggag tcgtacctca agaaactta tttgattgcc     660
caggcagccg gagaggtttc cgagatattt cccaaagtgg gcgaattggt aggtaccggc    720
gcccccatta tgaatatcgc cataatggac gatatgtggg tgactttcaa tgtacgtgag    780
gatctgctaa aaaatttgac catgggatca gaattcgatg ctatcgtacc cgcattggac    840
aatcagacca ttcgcctgaa agtgcattat atgaaagatc ttggtacata cgctgcctgg    900
aaagcaacca agaccaccgg ccagttcgac ttgaaaacat tcgaagtaaa agcgactccg    960
cttgaaaaag taactaatct gcgtcccgga atgtcagtca tcatcaagaa atga         1014
```

<210> 3077
<211> 558
<212> DNA
<213> B.fragilis

<400> 3077
```
atcgagatga cagaaataga aaaaatgcgt agcggtgaat tggcggatat gtcggcacct     60
gaattacagg tgagatttga acatgccaag aagttattgg cacgaatgcg gtgcttgagt    120
acgtatgacg aaacttatcg gggactactt gaagaattga tacctgatct tccggctact    180
tccgttattt gcccgccttt tcattgtgat catggcgatg gcatccgttt gggtgagcat    240
gtatttgtga atgccaattg tacgttcctt gacggagcat tcatcaccat cggaagtcat    300
acattgatag gtccgtgtgt gcaaatctat actccacatc atccaatgga ctatctggaa    360
cgccgtaacc ccaaagagta cgcttatccg gtaactattg gcgaagactg ttggattggt    420
ggcggggctg tcgtttgtcc cggcgtgacg ataggtgacc gttgtgtgat cggagccggc    480
agtgtggtga caaaggatat accggacgat tgtgtggcgg taggtaatcc tgcacgtgtt    540
attaggtgtc ggatgtaa                                                 558
```

<210> 3078
<211> 417
<212> DNA
<213> B.fragilis

<400> 3078
```
gatagtagtt attcaataga acgttgcggt agtatgaccc tggaagagat attgcaaata     60
gaagcacaga atgttgattg tatttttctg tatcaggaag aaggagcatg gtatgcttat    120
gaacattctg ctttttattg ttattctctt ctgggcatac ttgatatcga ctggttgcct    180
```

```
tgccccgatg gagtctcttc cgggcagaaa acaatcaggg tacgtgtttc cgaaccggat      240
aagttttgt gtactccttt gttacgtctg atgcggaagc gtaaaacaga atatgttgtt      300
ttgtgtaaga tttcgtgtgg aggttttttat tattggcggg aacagcaaca aatgaaattt    360
cgtgtattac aggaaagaga aagctcttgt acgaagataa atgaacatgc tgaatga       417
```

<210> 3079
<211> 1437
<212> DNA
<213> B.fragilis

<400> 3079

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tctctttttat acaaactttc tctcccctta tgccttataa ctcaggaaaa agagttaatt    60
ttgcagcctg ataattatct aaacgacaat atgaaacttg atttacttac ggccatctct     120
ccgattgacg gccgatatag aggcaaggct gaagctttag ctgcatattt ttctgaatat     180
gcgttgatta ataccgtgt gcaggtagaa gtagagtatt ttattacttt gtgcgaactg      240
ccgttgccgc aactgaaggg aattgataag agtgtgttcg agtcattgcg caatatctac     300
cgtaatttta cggaagccga tgcgcagcgt atcaaggata ttgaaagtgt gactaaccat     360
gatgtgaaag ccgtagagta tttcctgaaa gaagagtttg ataagttggg tggattggaa     420
gagtacaaag agtttattca ttttggactg acttcgcagg atattaacaa tacatcgatc     480
cctctttcta ttaaggaagc attggagcaa gtttattatc cgctgattga agaactgatt     540
gcgcagttga aaacgtatgc tactgaatgg gaatccattc cgatgcttgc caaaactcac     600
ggtcagccgg catctccaac tcgcttggga aaggaaatta tggttttttgt ttatcgcctg    660
gaacgtcagc tggctacttt gaaggcttgc cctgtaactg ctaaattcgg tggtgcaacc     720
ggaaattata atgcacacca tgtggcttat cccgaatatg attggaaagc attcggaaat     780
cagtttgttg cagagaaact gggattggaa cgcgaggaat atacaacgca gatttcgaac     840
tacgacaatc tgtcggctat cttcgatgcc atgaagcgta tcaatacggt gatgatcgat     900
atgaaccgtg atttctggca atacatctcg atggaatatt tcaagcagaa gattaaagcc     960
ggagaggtgg gatcgagtgc gatgccgcat aaagtaaatc cgattgattt tgagaatgca    1020
gaaggtaatc tcggaattgc caatgccatt ctggaacacc tcgcagtgaa acttcccgta    1080
tcacgtttgc aacgcgacct gacagattct actgtgctgc gtaatgtagg tactccgttc    1140
gggcatattg tgattgctat tcaaagttcg ctgaaaggat tgcgcaagtt gttgctcaac    1200
gaaacggcta tctatcgtga tttggataat tgctggagtg tggtggctga ggctatccag    1260
actattcttc gtcgtgaggc ttacccgcat ccgtacgaag ccttgaaggc tctgactcgt    1320
acgaatcagg ctatcacaga aacttctatc aaggagttta ttgaaggatt ggatgtgaac    1380
gaagaaatca aaaagaatt aagagtaatt actccccatt cgtatacggg aatttaa      1437
```

<210> 3080
<211> 1929
<212> DNA
<213> B.fragilis

<400> 3080

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cctgaaaatc attttaataa aaacaatatg aagaaaatca catttattgc tattctttttg    60
ctgtgtatct gtagcctcac aaaagctaaa gagaaagtta tagagcaacc cccattcatc     120
gcctggacca gtacctctat tcaagtggac aaagttgttc tcagcgatac agctacggtg     180
ctttatatca aagcattcta tcatcccaag caatggatca ggatttccgg acaaagtttc     240
ctgaaggaca ataacggaga aacttacact ctgcgttcgg gaatcggcat caagcccgac     300
acggaattct ggatgcccga atccggagaa ggagaattcc gcctggtatt cccaccgatc     360
ccggcctcgg ctacttcgat cgattttttca gaaggagaca acgttcaagg tgctttcaag    420
atatggggca ttcagctgaa aggcaaagcc ctcccggaac ttttgttacc tcaagaagcc     480
atcgtacata aaatcgacat caacgatgaa ttgcccgagc ccaaaattga atataaagac     540
gctactataa aaggacggat tctggattat cgcccgggac tcgtcagcaa aattgtaccg     600
attatattcg atccggtaaa aggtgcctac gaaagcgaag aagtaaaaat aaacaatgac     660
ggtacattcg tcacgagagt gaaagtgccg accaccacat cggctgccat ccgtcttttt     720
ggtaaaatga taactttcta tgccgtaccg ggcgaagaga gcagcgtcat tatcaatacc     780
cgtgaacttt ccgccagca gtccaagttt cataaggatg acaaacctta tggcgaagcc    840
gtttatttcg gcggaacatt agccggcctg tcacaggaat attcgaactg caccctaaaa     900
acctccattc taaatgatta ccgccaatta ttcaaggatg tagcaggaat ggacgccggc     960
gcttacaaag actttatcta tggaaagcgg gccaatctcc tggcatccat agagaaagct    1020
```

```
ccaatcagca aggctctcaa ggcagtgttg ggtaatcaag tggatgccga ggctgcccaa   1080
gccatctccc tgacggaaat ggttatcaag caagcctaca ccatggagca caaaatgagc   1140
aaagaagagg ccagggaata ctttaacacg gctcagatag aactgcctga aaattattat   1200
gcgaatgctt tcagaccgct cgcttccatc aacaccatgg cagcactcta taattccaag   1260
ctctccgaac tgattccgta ttatctacgc cgccgaaccg atgaactgac caaagcctgg   1320
ggaaccgaca aaggaatcta cttcgatatc aacaaagcag gcgaactcta ttcgtccatc   1380
aaagagttca ccccgctgac tgccgaacag gaagtgatac ttgccactct tccacctgcc   1440
tgtcagaatg aagtgcggga cgccaacaac caactgctga agacccttga ggccaataaa   1500
aagaagacag ggttcaccat caacgaagtt ggtgacgtca gcaatgaaga gctgtttca    1560
tccatcatct ctaagtaccg gggcaaagtg attctggtag acttctgggc aacctggtgc   1620
ggcccctgcc gcatggccaa taaagcaatg ttgccactga aggaagagtt gaaaggaaag   1680
gacatcgttt acctttacat taccggcgaa acctcacccc tgaaaacatg ggagaacatg   1740
attccggata tccacggtga gcatttccgt ttaacggatg cccaatggag tttcttaggt   1800
gataaattcg acataagggg cgtacccacc tatctcatca tcgatcggga aggaaatgtc   1860
aaacatcaaa agacaggatt cccgggtgta gcccaaataa aagaggagtt gatgaaagta   1920
tatgattaa                                                           1929
```

```
<210> 3081
<211> 1035
<212> DNA
<213> B.fragilis
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```
<400> 3081
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acagactaca atgtgagaat caatttccgt aacggcgcat ggggcgaact cgaaataagc   120
agtagcgagg tgttgaacct gcacatggct gccacttgcc tgcattatgg tcaggaagcc   180
ttcgagggtt tgaaagcttt ccgtggtaaa gacggcaaag tgcgtatttt ccgtttggag   240
gagaatgctg cgcgtctgca gtccacctgt cagggcatca tgatggctga attgccgacg   300
gaacgtttca aggaagctat cctgaaagtg gtaaaattga cgaacgctt  tattcctcct   360
tacgagagtg gagcttctct ttacattcgc ccgttgctta tcggaaccag tgcccaggtg   420
ggtgtccatc cggcagatga atatatgttt gttgtatttg tcacaccggt cggtccttat   480
ttcaagggtg gcttctctac caatccttat gtcattatcc gcgagtacga ccgtgctgcg   540
cctcacggaa ccggtatcta caaagtcggt ggaaactatg cagccagtct gcgcgccaat   600
aagaaggctc acgacttggg ttattcctgc gagttctatc tggacgcaaa agataaaaaa   660
tacattgacg aatgtggtgc ggccaacttc tttggtatta aagacaatac ctacatcact   720
ccgaagtcta cttccatcct tccttccatc accaataaga gcttgatgca gttggcggaa   780
gatatgggca tgaaagtaga gcgccgtccg gtacccgaag aagagttgag cactttcgaa   840
gaagcgggag cttgtggtac tgctgccgtt atcagtccga tcgaacgtat tgacgacctt   900
gagaatggca agtcgtatgt gatttcgaaa gatggaaagc cgggaccggt ttgtgagaag   960
ctttataata aattgcgtgg catccagtat ggtgacgaac ccgatactca cggatgggtg   1020
actattgttg aataa                                                    1035
```

```
<210> 3082
<211> 807
<212> DNA
<213> B.fragilis
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<400> 3082
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gagcatgggc tttccctgct tgttgaagcg ggggaacaca aagtgctgtt cgataccggt   120
gcttcggatc tgtttctccg gaatgcccgc ctgttgggac tcgatctgag cgatgtggaa   180
tatgtggtgt tatctcacgg acatcgtgac catacagggg ggctttatgc ctttctgaag   240
atgaacagtg tagcgaaggt ggtttgcaag cgtgaggtat tccggaaaaa gttcaagaac   300
gagcgtgaga acggaatgct tcatcccgaa gcattggata agtcgcgctt ttggctggtt   360
gacgaaacta cggagattgt gccggcgta  tttgcgtttc cggacgtcaa ggtggtggac   420
aggaacgaca ctcacttcga acacttcttt acggagatag aaggagagat cgtcccgat   480
acttttgaag atgaactggc attggtgttg aagggcgaaa agtctctttc ggtactgagt   540
gcctgttcac accgggggat taccaatatc attcgtgccg tgcagaatgc ctttccggga   600
ttgggactca aactggtgat gggaggcttt catattcaca atgcggaaga agagaagttc   660
```

```
aatgtgattt cggcctttct gggtatgaaa cttcccaaac gtctgggagt ctgtcactgt      720
accggcattg acaaatatgc gttgttccgc cagcaattta acgaccgggt gttttataac      780
tataccggtt gggtagaaac gatttaa                                          807
```

<210> 3083
<211> 849
<212> DNA
<213> B.fragilis

<400> 3083
```
agaaaaaaca agatgtcaag aacaaatttt gatacattat tggaagccgg ttgccacttc       60
ggacacctta aaagaaagtg gaaccctgca atggctcctt atatttttat ggaacgcaat      120
ggtattcata tcattgacct ccacaaaaca gttgcaaaag ttgatgaagc cgcagaggct      180
ctgaaacaga ttgcaaaatc aggcaagaaa gtcctttttg ttgctactaa aaaacaagct      240
aaacaggtag tggctgaaaa agctgcatct gtaaacatgc cttatgttat cgaacgttgg      300
ccgggtggta tgttgactaa cttccctact atccgtaagg cagtgaagaa gatgactact      360
atcgacaagt tgactgctga tggtacttac tcaaacttgt caaaaagaga aattcttcag      420
atttctcgtc agcgtgctaa gctggacaag actttgggtt ctatcgctga cctgactcgt      480
ctgccgtctg ctttgttcgt tatcgatgta atgaaagaaa atatcgctgt tcgcgaagct      540
aaccgtttgg gtattcctgt atttggtatc gttgatacta actcggatcc tacaaacatt      600
gacttcgtaa ttccggcaaa tgatgacgct actaaatcag tagaagttat cctcgatgct      660
tgctgtgctg caatgatcga aggtctggaa gaaagaaaag ctgaaaagat cgatatggaa      720
gctgccggtg aagctcctgc taacaagggc aaaaagaaat cagctaaggc tagactcgat      780
aaatctgacg aagaagcaat caacgcagct aaagctgctg ctttcctgaa agaagacgaa      840
gaggcttaa                                                              849
```

<210> 3084
<211> 282
<212> DNA
<213> B.fragilis

<400> 3084
```
caaaagaaca ataggaaacc tatgaatgca gtcgccgaac tcctcccggc atttccgcag       60
ggacacacaa gtatatatct aaaatgttat tacatagtcc tatcctttaa ctcaaccaca      120
aaagggatag agcagaaaag agaaataaaa aaaatagcta aaagcatttg ccttcttcaa      180
aaagaatcag tatatttgaa gtataagaag actcagatat ggcaaacccc aaattaccgg      240
gaatacccga agctgaacaa gctctgttgt atgccaaact ga                        282
```

<210> 3085
<211> 720
<212> DNA
<213> B.fragilis

<400> 3085
```
catattacaa aaatgaaaaa gcaaatcata caccgctgga tgctgatggc tgtcttctgc       60
ctcggagcat cattgatagg aataaatgcc caagaaaaag actgggctaa cctgcaacgt      120
tatgcacaac aaaacgccga acttccgaaa ccggacaaaa acgaaaagag agtggtcttt      180
atgggcaatt ccatcacaga aggatgggta aacactcatc ctgatttctt taaatccaac      240
ggttacatcg gccggggcat cggcggacag acttcttacc agttcctggt acgtttcagg      300
gaagatgtca tcaacttatc tcctgcactg gtagtaatca atgcagccac aaatgatatt      360
gccgagaaca caggagcata tcatgaagac cgcacttttg caatattgt ttcgatggtg       420
gaactggcaa aagccaatca tataaaagtg atattgacca ccactttacc ggctgccgct      480
ttcggttgga atcctgccat taaagatgct cctcaaaaga tagcttcact caatgcacgt      540
ctgaaagcct atgcccaaac aaataaaatt ccattcgtcg actattactc ttctatggtg      600
agcggtagca acaaagcttt gaatccggcc tataccaaag atggtgtgca tcccacttcc      660
gaaggatatg acgttatgga gaatcttatt caacaggcta taaacaagac tttacgataa      720
```

<210> 3086
<211> 483

<212> DNA
<213> B.fragilis

<400> 3086

```
catttaaaaa acaaattaag agtggatact ttaagttaca agaccatttc tgcaaacaag      60
gcaactgtaa ccaaagaatg ggttatcgtt gatgctacag accaaacttt aggtcgtctg     120
ggagcaaaag ttgcgaaact gttgagagga aagtataaac caaactttac tcctcatgta     180
gactgcggtg ataacgttat tatcatcaat gcagacaaag ttaaattaag tggtaacaaa     240
tggaatgaca gagtttattt gtcttatact ggctacccgg gtggtcagag agaaatgact     300
cctgctcgtt tgatcgccaa acctaacggt gaagacagat tactgagaaa agtagtgaag     360
ggcatgcttc cgaagaacag actgggagct aagttgctga gcaatatgta tgtttacgca     420
ggtagcgaac acaaacacga tgctcagaac ccgaaagcaa ttgatataaa ctcacttaaa     480
taa                                                                    483
```

<210> 3087
<211> 759
<212> DNA
<213> B.fragilis

<400> 3087

```
atgggaaaaa ataaattaga gaagtttgcc gatatggcaa gttatccgca tgtctttgag      60
tatccttact cggcagtgga caatgtgcct tttgacatga agggaaaatg gcacaaagag     120
tttttcaaga acgataatcc gattgtactc gaattgggtt gcggacgtgg cgaatatacc     180
gtcggactgg ggcggatgtt tcccgataag aattttatcg cggtagatat caaaggcgcc     240
cgtatgtgga cgggagctac cgaatctctt caggccggca tgaagaatgt ggctttcctg     300
cgtaccaaca tcgagatcat cgaccgcttt tttgcagaag gggaagtgag cgaaatctgg     360
ctgacttttt ctgatccgca aatgaagaaa gctaccaagc gactgacttc tacctatttt     420
atggaacgct accgtaagtt tttggtatcc aatggaatca ttcatctgaa gactgacagc     480
aacttcatgt tcacttatac cgaatatatg attgaggaga acggactgcc ggtagagttt     540
atcaccgaag atctttatca ttctgatttg gtagacgata ttctgggtat caagacctat     600
tatgaacaac agtggctcga tcgcggttta agcattaagt acatcaaatt cctgttgccg     660
caggaaggag aactcagaga accggatatt gaaattgaac tcgattcgta ccggagctat     720
aatcgtagca agcggagcgg attgcagaca tctaaataa                            759
```

<210> 3088
<211> 1461
<212> DNA
<213> B.fragilis

<400> 3088

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gatgcgatga aaaaattact gtttctgttt tttctcctaa caactccctt ttccctgaaa      60
tcacagggga ttctatcctt agatagttgc cgtgcattgg ccattgccaa caataaagag     120
ttgctgataa gcggagagaa aataaatgct gcacactacc aaaagaaagc agcctttacc     180
aactacctgc ctaacttctc cgccacagga gcttacatgc gtaaccaaaa ggaattctca     240
ttgcttaaca atgaccagaa agcggctcta tccggcttgg tacaagtgt gagcggtccg     300
ttgcaacaag ccgcccaagt catcggacag ctgcatccgg aactggcccc catgctttca     360
caattgggag gagccattgt cccggcgctc aacgaagccg gaactgcaat tgtagacgca     420
ttccgcaccg atacccgaaa tgtatatgca ggagccatca ccctcaccca accgctatat     480
atgggtggca agatacgtgc atacaataaa atcaccaaat acgccgaaga actggctcgt     540
cagcaacata actcgggtat gcaggaagtg attctcagca cagaccaggc ttactggcag     600
gttatttcct tggtcaacaa gaaaaaactc gcggaaagtt acctgaagct attacaaaaa     660
ctggacagtg atgtagaaaa gatgattgcc gaaggagtag ccaccaaagc ggacggcctg     720
tcggttcggg taaaagtaaa cgaagccgag atgacactga caaaggtaga agacggatta     780
agcctttccc gcatgctgct gtgtcaactg tgtggcatcg acctaagcac tccgattgtt     840
ctggctgacg aacaagtaga cgatcttccg ctgattccgg ctactaccaa ctttgagata     900
gaaacagcct acgccaaccg ccccgagatc cgcagtctgg aactggctgc caaaatctat     960
caacagaaaa taaacgtgac ccgttcggaa catttgcctt ccgtagcatt aatgggaaat    1020
tacatggtca ccaacccgtc tgtattcaac agttttgaaa acaagtttaa aggcatgtgg    1080
aatgtaggcg ttatggttca gttgcctatc tggcattggg gagaaggcat ttacaaagtg    1140
```

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aaagcggcca aagccgaagc acgtatcgcc caataccaac tggaagatgc caaagagaaa    1200
atcgagttgc aagtcaatca atcggctttc aaagtaaacg aagccgcaaa gaaactggct    1260
atggccaaaa agaaccttga aaaagcggat gaaaatctgc gttatgcaac tctcggattc    1320
gaagaaggtg tgatcgctcc cagtaatgta cttgaagcac ataccgcctg gctgtcggcc    1380
caatcggaaa agatagatgc acagattgat gtaaaactga cagaaatcta cttgcaaaag    1440
tcactgggaa cgctcaaata a                                              1461
```

<210> 3089
<211> 1263
<212> DNA
<213> B.fragilis

<400> 3089
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atacgtgccc taatgaaaga tataagttta aaagataaga taacacaagg catcaatgac     60
ctgttttata tctggaagcg ggaatttcgt actacattcc gcgaccaggg ggtattgatc    120
tttttcgtac tcgttccatt ggtatatcca ctgatctaca gttttatttа taccaacgaa    180
gtggttcgtg aagtgcctgc cgtggtagta gatgactcgc attcatcact cagccgagaa    240
tatctgcgta aagtagatgc cacccccgat atacagattg tggcttattg tgccgatatg    300
gaagaagcca aacaaatgct caaagaccga ctggcatatg gcatcattta cattccgaaa    360
gatttcagtt cggacatagc tcaaggcaaa cagacacaag tcagcatcta ctgtgatatg    420
agtggactgc tgtactataa aagtatgctt ttggccaata ctgccgtgtc attggatatg    480
aacgaagata tcaaaatagc ccgctcgggc aatacgaccg accgacagga cgaaatcact    540
gcctacccta tcgaatatga agacgtagcg atgttcaatc cgaccaatgg ctttgccgct    600
ttcctgatac ccgccgtgtt gatcctgatc attcagcaaa ccttgttatt gggtatcgga    660
ctttcggccg gcacggcacg cgagaacaac cgctttaaag atttggtacc cattaaccgc    720
cattataacg gtactttgcg cattgtattg ggtaaaggat taagttattt catggtatat    780
gccttggtat ctgtctatgt actatgcgcc gtcccccgta tgttcagcct caaccagata    840
ggacaacccg gcacactggc cctgttcata ctcccctatc tgatggcctg catctttttt    900
gccatgactg catctatcgc tatccgtaac cgggagacat gcatgctgat attcgtattc    960
acctctgtgc ctctattatt catctcaggt atttcctggc cgggagctgc catacctcca   1020
ttctggaaat acttctctta catatttcca tcaactttcg gtatcaacgg atttgtgaga   1080
atcaacaaca tgggagcaac actgagtgag attccatttg aatacaaagc gttatggata   1140
cagaccggct tctatttttct gaccacttgc tgggtatacc gttggcagat tatcaagagc   1200
cgtaaacacg tcatagacaa atacaagaa atgaaaaata gagggaaaga attcttttca    1260
taa                                                                  1263
```

<210> 3090
<211> 2046
<212> DNA
<213> B.fragilis

<400> 3090
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cttttgcttg aaacaaagat aattagtaca ttcgaagcgt ctatatcttc atgcagaaga     60
tgtaaacaga gcacatacaa taataaaaca catgttatga aaagaaaat gatgtcccta    120
ttactcgcat tggcggtaat aagcggaagt agcgtgtacg ctaaagtgat tgacgtaatg    180
tctcccaacg gagccattaa agtatcggta gacatcaagg accggattta ttattcggtg    240
tcctatgata atgaccagtt attaaaagat tgctatctca acctgcaact gcagaatgag    300
acgttaggta cgaatcccca cttacggagc accaaacgtg gaaccattga cgaaagtgta    360
aaacgtgaaa tacctttcaa gaatgcgatc gtaagaaatc actgtaatac cctgagaatg    420
aatttcagcg gaaattatgc cgttgaattc cgcgtattcg acaatggtat cgcttaccgt    480
tttgtgacag ataacaaagg agataacatc gtaatggggg aagacttcgc aattaacttt    540
ccagccaatt ataaagctca tctctcccaa ccggatggct ttaaaacctc atacgaatgc    600
ccatatactc atgtagatac cgaaaagtat gctgctaccg accgcatgag ttacctgcct    660
gtattgatag aaacggataa agcatataaa atactgatat ctgaagccga cttatccgat    720
tatccctgta tgttccttaa aagtaccggt aagaacggaa tgcagtctat ttttcccaaa    780
gcacctttag ccttcggaga agacggtgac cgtagcctca agattaccga agaagccgat    840
tacattgcca agacggacgg caagcgttca ttcccctggc gcatgatggt gatttcgaaa    900
gaagacaaag aactgattga aaacgaaatg gtgtataacc tgtctgctcc ttgtgttctt    960
gaagactaca gttggatcaa accgggacaa gtgagttggg aatggtggca cgacgcacgc   1020
```

```
ctctatgggg tagatttccg ttcgggtttc aatatggatt cctataagta ctacattgac    1080
ttcgcatcca agttcggtat tccttatatc atcatggacg aaggatgggc gaaaaacaca    1140
cgtgatccgt ttacccccaa tcccaccatc aatcttaccg aactgataaa atacggaaag    1200
gaccgcaacg taaaaatcgt actttggctg ccatggctga ctgtcgagaa tcatttcgac    1260
ctctttaaaa catttgccga ttggggcatc gcaggagtga agatcgactt catggaccgc    1320
agtgaccagt ggatggtaaa ctattatgaa cgtgtagcca aagaagccgc caagcataaa    1380
ctgtttgtag attttcatgg tgcttttaaa ccagccggac ttgaacgcaa atatccgaat    1440
gtgctttcct atgaaggcgt attgggcatg gaacaaggtg gtaattgcaa acctgaaaac    1500
agcattatc tgccctttat gcgtaatgcc gtgggaccga tggatttcac tccgggttca    1560
atgatctctg cacagccgga agacaaccgt tccacccggg ccaatgccat gggctcagga    1620
acacgtgctt tccaaatggc tcttttcatc atcttcgaaa gtggtctgca aatgttagcc    1680
gacaatccgg tttactatta cagagaactt ccctgtaccg aatttatcac aagtgttccc    1740
gtcacctggg atgaaaccaa ggtcctctat gccaaagtag gtgaagcagt cgtcgtagcc    1800
aaacgaaaag gagaacaatg gttcatcgga ggtatcaccg gcaatcaacc acaaaacatc    1860
gagatcgacc tcggattcat tccggcagga caatcattca cattaacctc atttgaagat    1920
ggcattaacg ctgaccgtca agcaatggat tacaagaaaa aggagtctac cgtgaacaat    1980
caaacccgca tgacattgaa aatggtacgc aacgggggat gggccggaac aattaaaatg    2040
aaatag                                                               2046
```

```
<210> 3091
<211> 1383
<212> DNA
<213> B.fragilis


<400> 3091
ttcatcgttg atcattcatc attcaaaaac cgttcatcgt ttcactcagc ccttaagctt     60
catcaacacc ggtgttttca ctgttttcac ttctgtttga ggggtttcat tcaattgttc    120
aaagataaca atcttatttt caccctttctt cagccataca cccggaacat agagtgtttg   180
ctgaggacct actttccagt aacgtccgat attaacaccg ttcacaaaaa cgatacccтt    240
tccccagctt tccatatcca taaatgtatc tccgactтta tccaacgtaa aagtccсctc    300
ataaagcacc ggacagcctt tcagcttagc cacttcagac ggtacatttt tatgtgtatc    360
agctttcaat ttggtcaaat cgggcatttc gtccatcggc aactgataca tatcccatcc    420
accgacaatt tccttcccgg ctatctgaac cgggctaata attcccttgg tattatgtac    480
gatctcgcta ccataattaa tgcgtcccat attttcaacc agaatctgca gagtagcatt    540
aaacggcacc tctatctcca tggagtaggt cttggtattc cgattcagca ctcctacctg    600
ttcaccatcc acataaacaa cggcatagtc acgcaacccc ggaatttcaa gtgttccgct    660
aatcggctga ttgaaatgac gagtatacaa tacatatcca taccctgat tcaattgttc    720
aaaagtcaag ggagtatcag acgacacggg cttctgtttt tctgcaaaag caagtacatc    780
cgcaacttta ttcaattgaa tagaaggtat ttcgataaca ggattaggag ccggagcttc    840
aggaattgta tatttaacat atttcttgat cacattgcga atcgaatcat actttggagt    900
tacccagcct gcctcgctaa taggagcatc ataatcataa ctggtcatat ccggctgaat    960
atcacgcttc ttatcataat tagcaccact cgtaaaacca aaattcgtac ctccatgcac   1020
catatagaag ttgaaagaaa catcattttg cagatacttc tcggtttgac gagcaatccc   1080
ggaagctcct atctgcggga acggctctgc ccaatgcgac agccaacccg gataaaattc   1140
tgcaaccata tacggacctt tgccgtcgtg atattgatca accactттtt tcaaattctc   1200
aatatcactt tcgccattcg ccgtaggcaa agctcccgga gtagccccac cctcaaaaag   1260
ccaactgcca tcagaagtaa acagaggtac attaaatcct gcatcagcca actgctgctt   1320
gattttagca ttgtaagcgc gatgttcttc caaaggtata tccttacgct gggcaacgta   1380
tga                                                                  1383
```

```
<210> 3092
<211> 675
<212> DNA
<213> B.fragilis


<400> 3092
aagcagaatg aagtgactat gaacaatcag atacagcata aagacagtac aaaggttccg     60
gagcctactt tgcgtcggct gccttggtat ctttcgaatg taaagttgct gaagcagaaa    120
ggtgaacgtt acgtctcttc tacccagatc tccaaagaaa taaacatcga tgcttcgcag    180
```

```
attgcgaaag atttgtcgta tgttaatatt tccggtcgta cgcgggtggg gtatgaagtg    240
gatgcgctga ttgccgttct ggaagatttt cttggcttta caaatatgca caaggctttc    300
ctgttcggtg taggaagtct gggaggagct ttattgcgtg attccggact tagccatttc    360
ggcttggaga ttgtagctgc ttttgatgta aacccgtcgc tggtaggcac tacgctcaat    420
gggattccca tttttccactc tgacgatttt cagaagaaga tgcaggagta cggtgtgcac    480
atcggtgtac tgaccgtgcc catcgagatt gcccaatgca ttacagatac gatggtggcc    540
ggtggtatta aagccgtctg gaattttacc cctttccgta ttcgtgttcc ggaagatatc    600
gtggtgcaga acacatcact ttacgctcat ctcgctgtta tgtttaatcg tttgaatttt    660
aatgaaatag aatag                                                     675
```

```
<210> 3093
<211> 873
<212> DNA
<213> B.fragilis
```

```
<400> 3093
gaagactcag atatggcaaa ccccaaatta ccgggaatac ccgaagctga acaagctctg    60
ttgtatgcca aactgaatga atacaaccgg ggccgcatgt cttacaaaga ggcaggagcc   120
tattttgtgg ttctgccaag accgggacat cccacttact cggtctggat ctattcgcct   180
acactcgaga agaacagact tctgtttatt cacgaactct cagcagacat caacgaatca   240
ctgcggatgg caagcacgct gtttttctt tccaggcgtt gcctgctgat tgtggaatac    300
aacgagaaga ggatgcaaag caacggagac gatatcatat cgttcggaag gtatcgcgga   360
cactatctgc acgaaatcct gaaagtcgat ccggcctacc tgagctggat agcctacaaa   420
tacacaccca aaatccccaa gcaggagcgt tttgtagcca tagcgcaagt atatcactct   480
gtacatctgg acatcatgca acgaaaggca cggcagaaac gcgaagccgg ccgtttctg    540
ggcaacgagg gtgaaaagtt ggagggcctg aatctaaaag tggtaagagt gcggcttgaa   600
gacgatccgt ataaaacaag ggtcatgggt acttccgttc agttctttgt acgacagata   660
gtaacgttaa ccgatccgtc cggaaatctg gtggtcttaa ggatttcttc gaaaacaccc   720
agccccgtat cctgccaact tccggcactg gaacatgagg tccgcccccgg cgagatagtc   780
cacatcgcct cggcacggat agcgcgcacg tacgaaagtt atgggtcaaa gtatacacgt   840
ttgagccatg tgaagtttct tatcggcaca taa                                873
```

```
<210> 3094
<211> 501
<212> DNA
<213> B.fragilis
```

```
<400> 3094
aatcgtacag atatgaaaaa gctttatttc tttaccatgc tggcggcgat gctgtttgcg    60
gtaacaaatg tgatggcaca aaaggctaac tttaagccag ctaatctgaa aggaatctgg   120
caattgtgcc actatgtttc agaaagtccg gatgctccgg gtgtacttaa accgagtaat   180
actttcaaag tactgagtga cgatggaaga attgtgaatt tcacgattcg tcccggagca   240
gatgctatta taacgggata tggtagctat gagcagttgt cggatcatac atacgctgaa   300
agcattgaaa agaatattca tttgccgatg ctcgacaatc aggataatgt tcttactttc   360
gaactcgttg atgataaagt attgcatctt aaatatttta tagagaagga tctgaatggc   420
aatgaactga attgctggta taaagagact tggaaacgta ttgagatgcc ggacaaattc   480
ccggaagaca ttgtaagata a                                              501
```

```
<210> 3095
<211> 1236
<212> DNA
<213> B.fragilis
```

```
<400> 3095
gatatgcaag acacgctttc tctttatgaa ctgaatgcct tggtccggcg gagtctggag    60
cagtgcctgc ccgatgaata ctgggtacag gcggagttga gcgatgtccg tacaaacagt   120
accgggcatt gctatctgga gtttgtccag aaagatcccc gcagcaataa tctgatagcc   180
aaggcaagag gaacgatctg ggctaacatc taccggctgc tgaagcctta ttttgaggag   240
tccaccggac agttgtttac ttccggcata aaggtgctgg tcaaggtgac ggttgctttc   300
```

```
catgaattgt atggttacag cctgaccgtg caggatatcg atcctaccta tacattgggc    360
gatatggcac gccgccgccg ggagatactc aggcagcttg aagaagaagg ggtgttgacg    420
ctgaacaaag agttggagat gccgttattg ccacaacgca ttgcggtcat ctcttcggct    480
acggcagccg gttatggcga tttctgccat cagttgcagc acaacccgcg cgggttctac    540
ttccgtacgg aacttttttcc cgccctgatg cagggcaacc aggtggagga gtctgtattg    600
gctgccctcg atgcagtgaa tgcccgggtg gatgagttcg atgtggtggt tatcatccgt    660
ggtggaggtg ccacttccga tttgtccggc tttgatactt atctgttggc tgctgcctgt    720
gcacagtttc cgttgcctgt cataaccggc atcggacacg agcgggacga taccgtactc    780
gattctgtag cccatacccg cgtgaaaact ccgacagcag cggccgaact gctgatcgac    840
cggatggaag aggcggcaga ccggctcggg gcgttggccg aagaactgca tacccgtgtt    900
ttctaccgcc tggagcaaga acgcaggagg cttgcttttgc tacaggcacg cataccgtca    960
caagtgatgc gtaaactgtc ggaatcgcgg ataaagttgc agatggcgaa aagcaatctc    1020
tcgcatgctg ccgaaacttt attggcccgc cagcaccacc ggctggaact tttacagaac    1080
cgcattgcgg acgcttcgcc tcagaagctg ttgaaacgag ggtatagcat cactctgaaa    1140
gacgggaagg cggtgaagag tgctgcctgc ctgcaatcgg gagacgagct gataacccgc    1200
ctttacaaag gagaagtgaa gtcgagagtc gaataa                             1236
```

```
<210> 3096
<211> 1008
<212> DNA
<213> B.fragilis
```

```
<400> 3096
aatataaaag atattatggc tgtaacaatg gctgatataa ccaagctccg caaaatgacc    60
ggtgctggta tgatggactg caaaaatgcg ttgactgatg ctgaaggcga tttcgacaaa    120
gcaatgaaga tcatccgcga aaaaggacag gcagttgctg caaaacgttc tgaccgtgag    180
gcttctgaag gttgtgtttt ggtaaaagta gaagaaggtt tcggtgctat catcgctttg    240
aagtgcgaaa ctgactttgt tgctcagaat gctgacttcg tgaaactgac tcaggatatt    300
ctggacgctg ctgtagctaa caagtgcaag actctggaag aagtttTggc tcttccgatg    360
ggtgatgcta ctgtagctca ggctgtaaca gacagaaccg gtatcactgg tgaaaagatg    420
gagttggatg gttacatggt tttggaaggc gctacaattg ctgcttacaa ccatatgaac    480
agaaacggtc tttgcaccat ggttgctttc aacaagaaag ttgacgaaca gctggctaag    540
caagtagcta tgcaggttgc tgctatgaat ccgatcgcag ttgatgaaga tggcgtttct    600
gaagaagtga agcagaaaga aatcgaagtg ctgttgaaa agactaaagt agaacaggtg    660
cagaaagctg tagaagctgc tttgaagaaa gctaatatca atccggctca tgtggacagt    720
gaagaccaca tggaaagcaa catggctaaa ggctggatta cagctgaaga tgttgcaaag    780
gcaaaagaaa tcattgctac tgtttcagct gagaaggctg caaatatgcc tgaacaaatg    840
attcagaaca ttgctaaagg acgtttggct aagttcttga aagaagtttg cttgctgaat    900
caggaagaca tcatggatgc caagaagata gtgagagaag tgttgaaaga agctgatcct    960
gaattgaagg ttgttgattt caaacgtttc actttgagag ctgaataa                 1008
```

```
<210> 3097
<211> 819
<212> DNA
<213> B.fragilis
```

```
<400> 3097
cgttatggag aatcttattc aacaggctat aaacaagact ttacgataac catattcaaa    60
aaggaaatta tgaaaccgtt tatctctttt tgtctttttat tgtgtatttg cttaggtaaa    120
ctatatgcgc aaggcgtaaa tatcgtatac ataggcaaca gtattaccca aggcgcatta    180
ttgaaaactc cggcaacgga agcaccgccg gtacaggcaa gtcaatacat cgaacaagca    240
accaagcaat cggtcgcttt tcgaaattgt ggagtaagcg gagcgaccac tttgaatttt    300
cttccaatcg cagaaagaca atttccgaat gtaaatctg ccgcccaaga attgagtcaa    360
cgtaaaggaa cactgctttt ttccattatg ctgggcacga atgacagtgc ttgtaacggt    420
ccattcggtt ctccggtgga accggtgtcc tactatacca acatgaaaac aattatcgac    480
gaactccttt ctttgtatcc ggaatgcaaa gtggtgattc atcaaccaat ctggtatagc    540
ccgaacacat ataacagtgc catgtatctg ctgccggcc tcaagcgact gaaaagctac    600
actcccatga tccataaact ggtagaccac tattcacagg caaaccccaa tcaagtcttt    660
ttgggagata cggctgcttc cgatttcttc cggaacaatt atcagagtta tttcacgccg    720
```

```
gagaatggaa atgcaggtac tttttatctg cacccgaata aagagggagc cggtatcttg    780
ggtaaatact gggcagaggc tatcctaaag gcaatataa                           819
```

<210> 3098
<211> 393
<212> DNA
<213> B.fragilis

<400> 3098
```
gatataatgg aagtagtaaa tgcattaggc agacgtaaac gtgctattgc acgcgtattc     60
gtaagcgaag gtacaggaaa gattactatt aacaagagag accttgcaga gtactttcca    120
tcaactattc ttcagtatgt tgttaaacaa ccattgaaca agcttggtgt tgctgagaag    180
tatgacatca aagtgaactt gtgcggtggt ggttttactg gtcagtctca ggctttgcgt    240
ttagctattg cccgtgcact ggttaagatc aacgctgaag ataagccggc acttcgttct    300
gaaggcttca tgacacgtga tcctcgttct gttgaacgta agaaaccggg tcagccgaaa    360
gctcgtagaa gattccagtt cagcaagcgt taa                                 393
```

<210> 3099
<211> 297
<212> DNA
<213> B.fragilis

<400> 3099
```
atgttactac taaaaatttt cttcaccact tatcaacctt ccccggacaa aggaagatta     60
acttgctatg aattaatctc ttatcctttt gagataataa tcggcttgca aaagtacggc    120
ttttctttga attggcaaac tatttctgtc ttttttttgga tttatccggt tgataacgag    180
ccacaagcta tctgccgtaa acagcgccca acaagacaaa aaaagactgc aggcaacaag    240
ccacacacga tcaatgctac aatacataat cggcagcttg ctacctgcag tccgtaa       297
```

<210> 3100
<211> 246
<212> DNA
<213> B.fragilis

<400> 3100
```
atatatactt gtgtgtccct gcggaaatgc cgggaggagt tcggcgactg cattcatagg     60
tttcctattg ttcttttgct acttgtgacg gcttttcgtg cgcagaaagt aattaaagtc    120
ggtgtttggg tgacagcccc ttttctccgg atcggcaaac cgggtgtaat ggagcgggaa    180
aacagtgctt ttaaggacgg aaagccgggg tcgggagggg gaagagccgg gctttgggga    240
aaatga                                                               246
```

<210> 3101
<211> 1203
<212> DNA
<213> B.fragilis

<400> 3101
```
catgaggtct gttatgcccc ctgtagtttt aaagtttgta tactaacttg tccaattgat     60
tgtattctgc cgggaatctt gtacatttgc attcttcgta aaaagagaat gaatatgaaa    120
gaatccaaga agcgtgttct tgtcggtatg agtgggggga tagacagcac cgccacctgc    180
ctgatgctgc aagagcaggg atatgagata gtgggggtca ccatgcgtgt ctggggtgac    240
gagccgcagg atgccaggga gttggcggca cgtatgggga tagagcatta tgtggccgat    300
gaacgcgttc cttttaaaga taccattgtc aaaaacttta tagacgagta ccgtcagggg    360
cgtacgccga acccttgcgt gatgtgcaat ccgttattta gttccggat gttgatagaa    420
tgggctgaca agctggggtg cgactggata gccaccggtc attactcccg gttggaagag    480
cggaacggac atatctatat cgttgccggt gatgatgaca agaaagacca gtcctatttc    540
ctctggcgac tgggacagga cgtgctgcga cgttgcattt ttcctttggg taactatacc    600
aagcagaccg tccgtgacta tctgcgtgag aaaggctatg aagccaagtc gaaggaaggg    660
gagagtatgg aggtatgctt tattaaagga gactatcgcg attttcttcg cgaacagtgt    720
```

```
ccggagttgg atgctgaggt aggtccggga tggtttgtca gttcagaagg tgtaaagctg    780
gggcagcaca aaggcttccc ttattatacc atcggacagc gtaaaggact ggagatcgca    840
ctgggaaaac cggcctatgt cttgaaaatc aatccgcaga agaacaccgt catgctgggt    900
gatgccgggc agttgagagc cgaatacatg gtggcggagc aagacaacat tgtggatgag    960
gatgaattgt ttgcgtgtcc ggacctggcg gtgcgcatcc gttacagaag ccgtccgatt   1020
ccttgccggg tgaagaggct tgaagacggg cgtctgctgg ttcgtttctt ggcggaggcg   1080
tcggcgattg ctccggggca gtcggccgtg ttttatgaag gccggcgggt gttgggcggt   1140
gcgtttatcg cttcgcaacg cggtatcggg ttagtgattg aacagaacaa agactggaaa   1200
tag                                                                  1203
```

<210> 3102
<211> 207
<212> DNA
<213> B.fragilis

<400> 3102

```
cagacctcat gtcatggcaa tgtctcctac atatccatga acagaacact tgtagaacga     60
tgcttttgtc tttctgtcaa tttgatatca gaacctccct acatttcggt ttttcgggcc    120
gacggaaagc ttcgtaagaa aaaacgacct acacgcaatc agccgattat ccttttagca    180
gccaatcgga caataaccat acaataa                                         207
```

<210> 3103
<211> 1014
<212> DNA
<213> B.fragilis

<400> 3103

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aaagaggtgg agatagttgg aaatatcagt gtgaaaacag tacaggctgc acgtcccgaa    180
gtgggcaaat tgctgcccca tgtgaagaat atcatcggca tctcttccgg taagggagga    240
gtgggtaagt ctaccgtatc ggccaacctg gctgtagcgt tggctaagtt gggttataaa    300
gtcggtctac tggatgccga cgttttcggt ccttccatgc ctaagatgtt tcaagtggaa    360
gatgcccgcc cctacgctga gaagatagac ggacgcgata tgattattcc tgtcgagaag    420
tatggcgtga aactgctttc tatcggtttc tttgtcgatc ccgaccaggc cactttatgg    480
cgcgggggta tggcgagcaa tgcgttgaaa cagttgatcg gggatgccgc ctggggagat    540
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cagacactgg cactgacagg tgctgttgtt gtcagcactc cgcaggctgt agctttggcc    660
gatgcccgca aggggatcaa catgttcact aatgataaag taaacgtccc catcctcgga    720
ttggtggaga atatggcctg gtttactccg ccgaacttc cggaaaacaa gtattatctt     780
ttcggaaaag aaggtgccaa gaagttggcc gaagagatga acgttccgct gttgggacag    840
attccgattg ttcagagtat ctgtgaagga ggcgataaag gaactccggt tgctttggac    900
gaaaatacgg ttacaggtcg tgcattcctc gcactggctg ccagcgtggt acgtcaggta    960
gataagcgga atgtagaaat ggctcccacg aagattgtgg agttacataa gtaa          1014
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<210> 3104
<211> 2586
<212> DNA
<213> B.fragilis

<400> 3104

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cttagaaaca agccactgcc tgctgttttg aaactgattg agaaagcggg ggagaagcat    180
atcatttttt cctataacga gactgagact taccatgtca ctgcctctat ccatcaaaga    240
aacgaatcgg aagcactttc catcgttctg aaaagtaccc cgttcattta taaagaacga    300
gaaaactatt ttgtcattca gaaagggagc attgacaaac gcttgataac tattcgagga    360
agtgtgattg atgaaaacaa tgaaccgtta gtttgcgcca atgtgctatt gctggacaaa    420
gcagactctg ctttttgtgaa tggagtggtt acgaatcagg atggttcgtt ccggataccg    480
```

```
ggtgaagaag ggagagatta tcttttgaaa acgtcctaca tcggttatca gactaaaatc      540
caaccttgcg gtgcaatgaa taaagtatgt ctgttttccg atacccaatt aatgaaagaa      600
gtggttatta gtgtcgatca tcctttaata gtacataaag ataatggctt attggctaat      660
gtcgttggta ctcctttagc taaaatgggt tctgctgcgg aaatgatatc ccatcttcct      720
tttgtaacgg gagggtagg ggaatacatg gttctgggac acggggtccc tgttatctac       780
atcaatggcc gtaagatacg tgatcagggg gaattggaac gtttgcgtgc cgatgatatt      840
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ttaaatcagg aaactgacgc ttcttcccga tgggaggtca aaggaggagc taccagtttt     1140
cataaagctg tttatttctc cggtgaggta ggtttcaact atgagttgga tgacaagaat     1200
tctttgggtg ctcgatatat gccgggtgca aatgtcggtt ctgtgaatcg gactaacctt     1260
ggcaataatt ttgtgtataa ggatggtgaa aagatagaag aaatatcttc tttgcagcat     1320
gcacatactt atcctacctg gactcattcg gtgaatggat actataatgg ggtgttcggc     1380
caatggaatg tggatttcaa tgctgattat ttattgggaa agaataattc cacgaatgaa     1440
gttttcaaca atgatgataa agccgctcaa tctgaaaatg aagtccggaa ctatctgtat     1500
gctatgcgta tggttgtaaa acgatctttc agaaaaggga cattgtcgtt tggtaccgag     1560
gaaacgttta cgaacaggca cgacgtattt gttcaaagtg gcttttctga caacgccgat     1620
gatcatatca aacagtctat ttattctgtg tttgccgatt attcgctgca tttggataaa     1680
ttcaatgttg ctgtgggggct gcgttatgaa catcaaaaaa cggattatta tgaatatggg     1740
gttcaccaag atgaacaaag tccggtgtat aatgatatag ttcctgtcgc tttagtagga     1800
tatgaagata aaggttggca tgcatccctt tcttatcgct taataaggaa taatcctgac     1860
tatcacatgc tttcaagctc aattacatat tcaagtaaat atatgtatcg tagcggagat     1920
cccctactgg ttccacaaaa acaccatgtc tttatattgg atgccggatc aagatgggca     1980
tttgtaaatc tctttttttga tagaacattg gatttatata cgaggttcct caaaccttat     2040
aatgatgaaa cccatccggg agtgttgttg tttaccatgg cctccatacc tactacagat     2100
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aatgtgaacg ggaatatctc gacagccgcc aaacaaagtt attctttgat acacagggag     2340
ggtacggtaa atgcccgcct gtcgaaatca tttttggaag atgctctgat gataacactt     2400
acagccgatg atatttttca tacccgttat cattatatgg atggatatgg agtcagaagt     2460
catatactga cccgttcata taatgataat caacgttttg gtattcagat atcttataaa     2520
tttaatgcaa ctaagagtaa gtataaaggt accggtgcgg gacagagtga aaagcagcgc     2580
ctttag                                                                2586
```

<210> 3105
<211> 567
<212> DNA
<213> B.fragilis

<400> 3105
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ttttgttggc ttatggcaaa attaacgata ttccggtttc gtggacatat ttcacgggaa       60
gaacgcttca ggcaattgtt tgtggagata tatccccgcc tgttgcgtta tgccattcag      120
ctaatgagcg atcgggaaga agcgaaggat attgttggcg aagtgatgga gagaggcttgg     180
aaatgttttg atagactgga ggcggaaacg cagaacgctt atttctatac agctacacgt      240
aatacgtgcc tgaatcggtt aaagcacctg cgtgtggaac agcagcattt ggatacttta      300
cgtgaggtga cccggatgga tgtgaatacc ggatatcggc agcatgaggc acagttgcag      360
caagcggaaa cgattgcttg cagtctgtcg gaaccgacgc gtaccatttt gagactttgt      420
tattgggaga aactgaccta tcggcaagtt gcagaacggt ggaaataag tccggatacg       480
gtgaagaaac atatttcgaa agctttacgg attttacgta atgaaatgaa cggaaaggag      540
gaaacaaatg gaacagagag aggataa                                          567
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<210> 3106
<211> 462
<212> DNA
<213> B.fragilis

<400> 3106

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aattcgggtg cctcttcatg gaagaaaatc acgacaccgg gggatgcgga gaatgtgctg   120
acggtaggtg ctatcgaccg gagaggcgtg ttggcttcgt tttcttctat cggcaacaca   180
gccgataatc gcgtgaaacc cgatgtcgtt gccgtggggc tgaactcgga tgtgatgggg   240
acaaacggta atctgcgtaa agcgagtgga acctcgtttg cttcaccgat cctgtgcggc   300
atggtgactt gcctgtggca agcttgtccg caactgactg caaaggaaat catcgaactg   360
gtgcgtcaat ccggcgatcg ggtcgatttc cccgacaata tctacggata cggagtgccc   420
gatctgtgga aagcttatca atctgtttcg aagaaaaaat aa                       462
```

<210> 3107
<211> 243
<212> DNA
<213> B.fragilis

<400> 3107

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gtgctccgca gtgaagacga aacgtccgag catttggtgg agcaggacta cttggcggcg    60
gctgtcgagt ttgccgatag tgtcggagta gatgtggtga atacttcatt gggatatttc   120
acctttgatg attctaccaa gaactataag tatcgtgacc tggacggaca ccatgcactg   180
atgtcccgcc aggcgtcgaa aatggcggat aaaggaatcg tacttggtgt gcagtgccgg   240
taa                                                                  243
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<210> 3108
<211> 1773
<212> DNA
<213> B.fragilis

<400> 3108

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gaaaggacaa gaaaaataat cgctaatacc ctgaaaaaca tgactcccga actggcatat    60
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agagacacct tcttccaatg gcgaaggaca gctttgcttt gcttccttgt catttctccg   180
ctctatccgg tactgaacat tcaggaatgg atcagatcgc acgaaccgat ggtagcaatg   240
gtcgatttgt atgcaacaat cgtattgccc gaaatcgaaa taactcccga ggttagggct   300
gcggactggc aaagtatcat tttatctaca gtaaatatca tctattggtc aggggtcact   360
ttacttttag tacgtttctt cgctcaactt gccagtattc tacggttgcg tcttcgttgc   420
cggaaagatc agatagaagg aatacccgtc tatctgctgg ataaagaaag tggtcctttt   480
tcttttttttc actggatttt catttatccg caggcacacc cgcagaacga attaagtgaa   540
atcctgactc acgaaggaac acatgcccgc caaaggcatt ccatagatgt gattatcagt   600
gagctaatgt gtattgcctg ctggttcaat cctttcatgt ggttgatgaa gcgggaagta   660
cggaacaatc tggaatacat ggcggataat cgggtgctgg aagccggaca tgattcaaag   720
tcctatcaat atcatttgtt gggactggca catcaaaaga gcgcgatcac cctttccaac   780
agcttcaatg tgttgccgct gaagaaccgt atcacgatga tgaacaaaaa gagaaccaag   840
gagataggac gaaccaagta tctgctattt atccccttgg ctcttgcttt gatgatagta   900
agtaacatcg aagcagtggc acgtaccact aaaagtattg cacaggaagt gatgcaaacc   960
gtagaagaac agatagaacc cgaaaacgct gttgctgtta aggaaagcac ttcctctccc  1020
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gaagaaagcc aggagcaaat cgtattcgag gttgtggaga aaatgccgga gtttccgggc  1140
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gaaaacggaa cacaaggcca agtcatcgca cagttcgtaa ttcaggcaga cggcacactc  1260
tctgacctga aaatagtgaa aagcgtagac ccgttgctgg atgccgaagc catgcgcgtg  1320
ataaaagaga tgcctaaatg gcaacccggg aaacaaagag gaatagctgt tgccactagg  1380
gtcacagtgc cgatacgatt ccgactgatg gattccgatt ccgctccgtc aacagacagc  1440
aataagaatc aggagaatac catattcgat gtggttgaac gagcaccgga attccccggc  1500
ggaatggaag cctgcctgaa atatatgtat aaaaatataa aatatccggc agtcgcaatg  1560
gaagcgggaa tacaaggaca agttgtcata caaatagtca ttgacaagga cgggaaaata  1620
catgatccca agatagttcg gggagtatcg ccggaactga atgccgaagc ggtccgcgtg  1680
ataagcaaca tgcctcagtg gatacccgga aaacaaaagg gaaagaacgt ggcaacccga  1740
ttcacacttc cggtccgctt ccgtctggct tag                               1773
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<210> 3109
<211> 960
<212> DNA
<213> B.fragilis

<400> 3109

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acggaaagga ggaaacaaat ggaacagaga gaggataata aaaacgatat agcctcctgt    60
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accgcttggc aggcatttgc ctctcgccga cggcaggaaa gagtccgaac tttggtattc   180
ggctttgcag cagttgcttc cgtggcatta ctttgtgtt ggggctttc tcaggaaaac   240
tttctatccc aagaagtcga agtgtttgct tctgtaaatt cgcctgataa attggtgatg   300
acagaggata aagggatcat tgcagtcaga acgccacccg ctaccactat tactattcat   360
ttgcctgaca gtactgaagt gctgttgaac gccaatagcc gcttggaata cccgaaagcg   420
tttaccggtg atcttcggcg ggtaatgttg gaaggtgctg cgagatttaa tgttcaaaga   480
gatactttac atccctttat tgtagaaacc gggagtttac aaacgcgtgt attgggcacg   540
gtatttgatg ttgattccta tggatgtggt acgacttcta aagttgtgct gtatgaaggt   600
tcggtgcaag tcagtgataa agccaatacg aaagcctgta agataaagcc gggtgaacag   660
gtttatctgg atagagtagg tgatatctgt atttctcagg ctgatatctg tatgcaaaag   720
agttggacag aaggtctgtt tatctttgat aatgtcactc tgagatatgt tatgcaggaa   780
atcggggctt ggtataacac aaatattgtt ttccgttccc atcctttgct ggaggaacgg   840
atttatttt ctgccagtcg tcaccttcct gtcggggaaa tattaaatgt tttgaatgat   900
ttgcaaattg cgagattcat agtggaaggg gataaaatag tcgtatcacc actatcctga   960
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<210> 3110
<211> 1581
<212> DNA
<213> B.fragilis

<400> 3110

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ttgatattcg acaaagacgc aaagtttatg gaacgcgtca aagtagataa tgacaggttg   180
gtggtcaccg gaacggggat taatttcaca gtccgtttgg atgccacttc agaacggcgt   240
atcattcatc tggtagcaaa cggtcggagt gctgatggca cttcggatcg cttgaacttt   300
ggtggtataa ctccggggat ggctgaaaat gcggctatct cttccttgca gacagcctcg   360
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tggggacgtt ttgcattgaa cggaatcaat atcgtaacga agcagaggg tgtgaaactg   480
ttgcgttcca cagcatgtat acaagtgaag aagggtaatg gaggtgggaa taccggactg   540
ggtgattttg tcattgaggg aattactgta catcagggag cctgtcatgg cttcctggct   600
ccgaccgatt gcacaggaga agtaaatact cccgttgtcg caaatccggt taccggtgga   660
acctatctgg attatcgtaa gggttgggtt aatggtgcgg aaccatcttt atacatttat   720
gagcgcaatt gttcggcttc cgactatatg ggagtagtga ttgcagcccg gtataagggg   780
aaaaagggct actataaggt agtgatgaac ggtaatgacg gaagtccttt gaacattgta   840
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gatattgctg tggcttctgc accttcgaat gccttgaaag tggagttgac ggatgaagac   960
acggatctgc cctgtattgt ggccgacggt caataccgta tggcatcgtc taataatgta  1020
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gtatattcca gtcgtggtat tcagccggtt ctgacccttc ctgacgattg taattggttg  1140
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tcagcggcca atgatgccgt agctacaacc ttgactatga cgtgtgataa tctgtctcag  1260
ccggttcgtg tcagttggaa tcccatcata tcggatcaga aagatatcga ttcgtttgtc  1320
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cccggctggc tctttctaca cccatccgcc gcatctcccg gagctcttcc gggggacggc  1440
atggtgtcgg aactcagtag caaatacagt tcgcatgctt atttgcacgt agctttcgga  1500
gcgaacagga gagggactgt acagatgact tccgcctccg gcggggaaac tgtagcccgt  1560
aagatagtag ttattcaata g                                            1581
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<210> 3111
<211> 1296

<212> DNA
<213> B.fragilis

<400> 3111
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acttttttccg gaatacctca cgcttgcaaa ccaccttcgc tacactgttc atcttcagaa    60
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cgctcagatc gagtcccaac aggcgggcat tccggagaaa cagatccgaa gcaccggtat   180
cgaacagcac tttgtgttcc cccgcttcaa caagcaggga aagcccatgc tctccctgta   240
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cgtttattca acaatagtca cccatccgtg agtatcgggt tcgtcaccat actggatgcc   360
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agagaagcca cccttgaaat aaggaccgac cggtgtgaca aatacaacaa acatatattc   900
atctgccgga tggacaccca cctgggcact ggttccgata agcaacgggc gaatgtaaag   960
agaagctcca ctctcgtaag gaggaataaa gcgttcgttc aattttacca ctttcaggat  1020
agcttccttg aaacgttccg tcggcaattc agccatcatg atgccctgac aggtggactg  1080
cagacgcgca gcattctcct ccaaacggaa aatacgcact ttgccgtctt taccacggaa  1140
agctttcaaa ccctcgaagg cttcctgacc ataatgcagg caagtggcag ccatgtgcag  1200
gttcaacacc tcgctactgc ttatttcgag ttcgccccat gcgccgttac ggaaattgat  1260
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<210> 3112
<211> 906
<212> DNA
<213> B.fragilis

<400> 3112
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gctaatgatt tggatggttt tattagtatt cctgataatg cgacaggtgt tcaacaaatt   180
tctactcgta gtagttctga caatttgaag attgtatatc atggtaaggt ctatgaaact   240
ttatatacga ttattgatga ctcaatttat tcatatcaga attctgaagt gaaagatttg   300
atggataatt tgagtgaaac ccggcctaat cttaggacat ttattcatgg gaatggagtc   360
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tatgaaaaag agtcattgtc gacatcgctt tctgaaagat ggtttcctac tgataatgta   480
ccacaacttg cgcctataga tccggagaat aatgaagtgg aaatttattt gtacgaagat   540
ccatattatt taggagattt gtttagtttg cagcgtaata gaagtgacag tgactacaac   600
gaacttagta aagtttggaa ttttggtggt cagatattat ctatgatagt acatactat   660
ggttttggtg gtgtttttac attttatgaa agaatgggtt gtcagggtaa aggtataaca   720
ttagtcctta ctgccggtca atatattaat ttatgttcag aattatctgc tgatgcaatg   780
agagggatca gttatggttc aattgccatg tcagatttga ggagcctcca ttggtctggg   840
attgcaggta attggaataa taggatatgt tgtataaaag tggatcgtta cattggaatg   900
atgtaa                                                            906
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<210> 3113
<211> 1044
<212> DNA
<213> B.fragilis

<400> 3113
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agctcacgaa acattctccg caatctggac·gcattcgggc aaacagctgt cgtggcgcgt   120
tatagcagtg ttaacgaagc acgtacagct atgcaggaag gcaaaatcta cggatttttt   180
```

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tatataccca aaggaatgtc ggccgatgcc cagagtcaac gccaacccaa attatctttt      240
tataccaaca actcctacct gattgccggc tcattattgt tcaaggatat gaagatgatg      300
tccgaacttg cctcaggagc tgccgcccgt tcagttttat atgccaaggg agcaacggaa      360
gatcaggcga tgggatattt acaacccatt gtcatcgata cacatccgat acaaaatcct      420
tggttaaatt attcggtcta tctatgcaat acacttgttc cgggagtatt gatgttgttg      480
atattcatgg taacagtatt ttccatcggt gtggaaatca aggaccgcac ggcccgggag      540
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ttcccatgta acagcggaat tcttccgatg ctattggcaa ccctctgcct ggtattggca      720
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gccatgaatc cggtattgca ggcactcagt aacctgttcc cattgcgcca ctatttcctg      900
atctatgtag accaggcact caacggatac agcatggctt attcctggtc aaactatatg      960
gcattactga ttttcatgtt acttccgttc ttcgtcgtac atcggttgaa ggaagctttg     1020
atatattata aatacgtgcc ctaa                                             1044
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<210> 3114
<211> 222
<212> DNA
<213> B.fragilis

<400> 3114

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aagattgttc ggcagatcga cagtaacgaa ctggagattg acgaactgag tgaaaaaata      120
aaagaagcca atgaaataat agctttctgt accggaaagc tgacaaaggc agatcaggaa      180
attgaaaaat tactgcaaga aaagaggcta tctgaagaat aa                         222
```

<210> 3115
<211> 1413
<212> DNA
<213> B.fragilis

<400> 3115

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aatagttgta tggaaaagat tagtagaaca aaaattgtcg acctgatgaa gcgcgaagat       60
tttggcgcta tggtcaatgt gaaaggatgg gttcgcaccc gcagaggcag caaacaagtt      120
aactttatcg cactgaatga cggttctaca ataaataatg tgcaggtcgt agtcgatctg      180
gcgaactttg atgaagagat gctgaagcaa atcacgaccg gtgcttgtct gagcgtgaac      240
ggtgtgttga cagagtcggt aggcgccgga cagaaggctg aagtgcaggc tcgtgaaatt      300
gaagtgctgg gaacttgtga caatacgtat ccgctacaga agaaagggca ctctatggag      360
tttttgcgtg agatagccca tttgcgtccg cgtaccaata cttttggagc agtattccgt      420
attcgtcaca atatggctat tgctatccat aaaattcttcc atgaaaaggg attcttctat      480
tttcatacac ctatcattac agcgtctgac tgtgaaggtg ccggacagat gtttcaggtg      540
actaccatga acctgtatga tctgaaaaaa gatgaaaacg gttctatcgt gtatgatgat      600
gacttctttg gcaaacaagc cagtttgact gtttcgggac agttggaagg tgagttagct      660
gctaccgctt taggtgcaat ctatacgttt ggtcctactt tccgtgccga aaattctaac      720
actccgcgtc acttggccga gttttggatg attgaaccgg aggtagcttt caacgaaatt      780
caggagaata tggatttggc tgaagagttc attaaatatt gtgtgagatg ggctttggat      840
aactgcgcag atgatgtgaa attcctgaac gacatgttcg ataaaggatt aattgaacgt      900
ttggaaggtg tacttaaaga agacttcgtc cgtctgccat acacgaagg tattaaaata      960
ctggaagaag ctgttgccaa aggacataaa ttcgaattcc cggtttactg gggagttgat     1020
ttggcttctg aacacgagcg ttatctggtg gaagaccact ttaaacgtcc ggtgatcctg     1080
actgactatc cgaaggaaat aaaggccttc tatatgaaac agaatgagga tggtaagact     1140
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gagtctgatt ataacaaatt gatgacgcgt attgaagaaa tgcatattcc gatgaaggat     1260
atgtggtggt atctggatac tcgtaagttc ggtacttgtc ctcactccgg attcggactg     1320
ggatttgaac gcttgttgct cttcgtgacg ggtatgtcta atatccgcga tgtaattccg     1380
ttcccgcgta ccccacgtaa tgccgatttt taa                                   1413
```

<210> 3116

<211> 375
<212> DNA
<213> B.fragilis

<400> 3116

```
atatactcca tggaaaagtt gacaatgcaa gaagaagaag tgatgatcta catttgggaa    60
ctggaaagtt gctatgtgaa agacatcgtt gccaagtttg agcaacctac tcctccctac   120
accacggtgg cttccatcgt gaagaatctc gaacggaaaa aatatgtaaa ggcacagcgt   180
gtaggaaaca cgtatctgta cactccgtct attaaagaaa gcgaatacaa acgaagtttc   240
atgagtggag tcgtacggaa ctactttgaa aactcttaca aagagatggt ttctttcttc   300
gccaaagatc aaaagatatc gaccaacgac ctgaaggaaa tcatcgacat gattgagaaa   360
ggacaagaaa aataa                                                    375
```

<210> 3117
<211> 2241
<212> DNA
<213> B.fragilis

<400> 3117

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aaaactaaca ttttacctaa aatgaagatt aaacgactct acttactggg agcctggctc    60
cttttgggcg tcagtgcttc ggcccaaatc acaagtattc aaccacaacc acagcaggtc   120
ctttcacaag cccgaaacct gagcttaccg gacacctatc tgattgttgg agatacagag   180
gcaaacacac atgccgtcag tgccctgaaa accctgcttg ccggaaagca ttcggataaa   240
aacgggtttc gcatctatat cggtgaaaaa ggggacaaag ctatccgcaa attcgcccga   300
cagattccta atcacaaaga aggctattat ttggccatca atgataaaga gattgtctta   360
gccggccagg acgaaagggg aactttctat gccttacaga cgttagcaca gttactgaat   420
gacaatcaac ttcctgtagt agaaatcaaa gactaccctt cagtccgttt ccgcggtgta   480
gtcgaaggat tttacggaac cccctggagc cacgaagccc gtctccgtca gttgaagttc   540
tacggagaga ataaaatgaa tacctatatc tatggcccta agatgatcc ataccacagt    600
tctcccaact ggcgcctgcc atatcccgaa aaagaggccc tccaattaca ggagttggta   660
aaagtagcca atgagaacga agtggacttt gtatgggcta ttcatccggg acaagacatc   720
aaatggaacc aggaagaccg cgatctgcta ctggcaaaat tcgaaaaaat gtacgatctg   780
ggagtccgtt cgttcgctgt attctttgac gatatctcgg gcgaaggcac caatccgaac   840
aagcaagccg aactgttgaa ctatatcgac gagaaatttg taaaggtaaa accggatgtc   900
actcctttgg tcatgtgtcc tacagaatac aataaaagct ggtcgaatcc caagggaaat   960
tatctgacta ccttgggaga aaagctgaac ccttctatcc aaataatgtg gacgggcgac  1020
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ccggcgtata tttggtggaa cttttccggta tcagattacg tacgcgacca tctttttactc  1140
ggaccggtct atggcaacga cacgcagatt gccgatcaga tgtcaggctt tgtcaccaat  1200
cccatggaac atgccgaagc atccaaaatt gcaatttaca gtgtagccgg ctatgcatgg  1260
aatcctgaaa aatacaacag tgaacagaca tggaaagatg ctatccgtac cattctgcca  1320
agtgccgcag acgaattgga attttttgca gcacataact ccgacttggg accgaacgga  1380
cataaatacc gccgggacga atctgtcgaa ttgcagccgt tatcacaacg ttttctcgat  1440
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ggaaagatgg tagagtccgg tgacattttg atgaccaaca cagggaatcg tcccctcatt  1560
gttgaaatga tgccttggct ccgtcagttt aaattattgg gcgaaaccgg gcaagaagtt  1620
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accacggtca ccgaacgcta ataataggag cacggtacac aattggatgc cgcaacagac  1860
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aaaaccaacc gtgtattggt atcacctgcc aacgaagtaa ttaaatgggg agccggatgc  1980
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aaaccggacg tggctgcctg gggacaactt gaaatttcgg ctgatggcaa agaatggcag  2100
aaggtcgatt tcaaacagga aaagaaccgc atcaccttga acttgaaaca aacacctgtg  2160
aaagctgtac gtttcagtaa tgtcggcaat gcggaacaag aagtttacct gcgccgcttc  2220
atgattactc tggacaaata g                                           2241
```

<210> 3118

<210> 360
<211> 360
<212> DNA
<213> B.fragilis

<400> 3118
actggaaaaa tgaagaacag cgattggaaa gaccggctga acgtggttta ctccaccaac   60
ccggattata attatgagat ggatgatgac gaagagcaag taaccctgga accgtcacaa   120
cagaacttac gggtgcaatt ggatcggaaa aaccggggcg gcaaagtcgt aaccctaatt   180
accggctttg tcggcaccga gaacgacctg aaagatttgg gaaaactcct caagacgaaa   240
tgtggagtag gcggatcggc taaagacgga gagattatcg ttcagggaga cttcaaacaa   300
aaaatagtag aactgctgaa gaaagaagga tatacgaaaa caaaagcagt aggaggataa   360

<210> 3119
<211> 618
<212> DNA
<213> B.fragilis

<400> 3119
agcatgaaga ttatagctgt tggaatgaat tatgcccggc acaacgagga actgggacat   60
acgttggaga ataaagagcc ggtaattttc atgaaacccg attcggccat ccttaaagat   120
ggcaaacctt tctttattcc cgattttttcg aatgaagtgc attatgaaac agaactggta   180
gtgcgcatca atcgcttggg aaagaatata gcttcacgct ttgctcatcg ttattatgat   240
gcggtgacag tcggcatcga cttcactgca cgtgatttac agcgcaggtt tcgtgaggcc   300
ggtaatcctt gggaattatg taaaggtttc gatagttctg ctgccattgg cacatttgta   360
ccggtggagc aactggccga tgtgcagaat cttcatttcc acctagatat agacgggaaa   420
acggtacagc aggggcatac tgccgatatg ctgttccggg tagacgatat cattgcttat   480
gtcagccgct ttgtgactct gaaaatcggt gaccttcttt tcaccggtac gcctgtaggg   540
gtcggtccgg tcagtatcgg ccagcatttg gagggatacc ttgaaaccga gaagttgctt   600
gatttctata tccggtaa   618

<210> 3120
<211> 282
<212> DNA
<213> B.fragilis

<400> 3120
aaatacgaga tgaaaaaatt agcacttatt gccttggtct tcgttgcttt gggagcgtcg   60
gcacaacagg atacgttaaa gtatcgcatc agcctgaaag ataaggttgg gaaccactta   120
ttcactggat catcccgaga aattcttgtc ggaaaaagcc atcgcccgcc gccagcgtca   180
gcagttgcct gtcgactcta ccgatctgcc ggtctgccgt cggtatgtgg atgccatccg   240
cgacagggga gtgaagattg tggctatggg aaaatgggat aa   282

<210> 3121
<211> 1932
<212> DNA
<213> B.fragilis

<400> 3121
tttatttctt tactttgctt catcaataaa cctattaata ctaccatgcg aacaaaatcg   60
atttttttac ttttgttgtt ggctgtcatg ccattgtgcg tgttctcgca gtcgaaatct   120
acgtttgaaa tcaagaatgg acatttttat cgtaacggaa agataacgcc tgttcttttcc   180
ggtgagatgc attatgcccg tatccctcat caatattggc gtcatcggtt gcagatgatg   240
aaaggtatgg ggttaaatac ggtggctacc tatgtgttct ggaatcttca tgagccggag   300
cccggaaaat gggattttac aggtgacaag aatttggctg aatttataaa aaccgcaggt   360
gaagagggga tgatggttat tttgcgtccc ggtccttatg tttgtgccga gtgggaattc   420
ggtggttatc cttggtggtt gcaaaatgtg aaaggaatgg aaatcaggag agataatccg   480
gagtttctga aatatacaaa agcgtatatc gatcgtcttt ataaagaggt cggtagtttg   540
cagtgtacaa agggtggtcc gattgtaatg gtgcagtgtg agaatgaatt tggttcatac   600
gttgcccagc gtaaggatat acctttggaa gaacatcgcg cttacaatgc taaaatcaag   660

```
cagcagttgg ctgatgcagg atttaatgta cctctgttta cttctgatgg cagttggctt    720
tttgagggtg gggctactcc gggagctttg cctacggcga atggcgaaag tgatattgag    780
aatttgaaaa aagtggttga tcaatatcac gacggcaaag gtccgtatat ggttgcagaa    840
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attgctcgtc aaaccgagaa gtatctgcaa aatgatgttt ctttcaactt ctatatggtg    960
catggaggta cgaattttgg ttttacgagt ggtgctaatt atgataagaa gcgtgatatt   1020
cagccggata tgaccagtta tgattatgat gctcctatta gcgaggcagg ctgggtaact   1080
ccaaagtatg attcgattcg caatgtgatc aagaaatatg ttaaatatac aattcctgaa   1140
gctccggctc ctaatcctgt tatcgaaata ccttctattc aattgaataa agttgcggat   1200
gtacttgctt ttgcagaaaa acagaagccc gtgtcgtctg atactccctt gacttttgaa   1260
caattgaatc aggggtatgg atatgtattg tatactcgtc atttcaatca gccgattagc   1320
ggaacacttg aaattccggg gttgcgtgac tatgccgttg tttatgtgga tggtgaacag   1380
gtaggagtgc tgaatcggaa taccaagacc tactccatgg agatagaggt gccgtttaat   1440
gctactctgc agattctggt tgaaaatatg ggacgcatta attatggtag cgagatcgta   1500
cataatacca agggaattat tagcccggtt cagatagccg ggaaggaaat tgtcggtgga   1560
tgggatatgt atcagttgcc gatggacgaa atgcccgatt tgaccaaatt gaaagctgat   1620
acacataaaa atgtaccgtc tgaagtggct aagctgaaag gctgtccggt gctttatgag   1680
gggactttta cgttggataa agtcggagat acatttatgg atatggaaag ctggggaaag   1740
ggtatcgttt ttgtgaacgg tgttaatatc ggacgttact ggaaagtagg tcctcagcaa   1800
acactctatg ttccgggtgt atggctgaag aagggtgaaa ataagattgt tatctttgaa   1860
caattgaatg aaacccctca aacagaagtg aaaacagtga aacaccggt gttgatgaag   1920
cttaagggct ga                                                        1932
```

<210> 3122
<211> 195
<212> DNA
<213> B.fragilis

<400> 3122

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aaatgtccat tcttgatttc aaacgtagat ttcgactgcg agaacacgca caatggcatg     60
acagccaaca acaaaagtaa aaaaatcgat tttgttcgca tggtagtatt aataggttta    120
ttgatgaagc aaagtaaaga aataaatcac tttcccgcca aatttccctt tgttttcttt    180
aaaaaaataa cttga                                                     195
```

<210> 3123
<211> 318
<212> DNA
<213> B.fragilis

<400> 3123

```
ttacaacgtt cccacgcttt tttatatacg aaagattctt tcgagggaac cgggagggat     60
agaaggaagg aaaagagcat gaaagcagca agaaatagcg gaatttgtat gaaactggat    120
gattttaccg gagtttttatc gttagagcat ctggatgtta atacaatggt atatctgtat    180
agtgagcagg gtgagttaat agggaaaatt cactcaacaa aatcttctgc tactttaca    240
ttacctcaaa aaggtatgta tgtgcttgta attcactgtt tatcctatcc ggtggaagtt    300
aggagagtca tttattga                                                  318
```

<210> 3124
<211> 996
<212> DNA
<213> B.fragilis

<400> 3124

```
gatatggtat cagctattac gaaaacgttg aggacaaaca acaaaacggt ctatgtttct     60
ttgctttcta ttttgacttt cttttttaatg ttggattata ttcccggttt gcaagcattt    120
tctacatggg ttactccgcc attggctctt tttctaggat tagcttttgc gttgacttgt    180
ggacaggccc atccgaaatt taacaaaaag acatctaaat atctattaca atattctgtt    240
gtaggattag ggtttggtat gaatttacat tcagctcttg cttccggtaa agaaggaatg    300
gagtttacga ttgtttcagt aattggcact ctgattttag gatggttcat tgggcgtaag    360
```

```
ttttttaaagg tagatcgtaa cacctcttat ctcatcagtt caggaactgc tatctgtggt      420
ggtagcgcta ttgctgctgt agggcctgta gtaaaggcta atgatagtga aatgtctgtg      480
gcattggcga ctatatttat attgaatgct cttgcgcttt ttatatttcc ggtgatcgga      540
cacgctttaa atatgagtca gcatgaattt ggaacatggg ccgcaattgc cattcatgat      600
acaagctctg tggtgggggc cggtgcagca tacggtgaag aagctttgaa agttgctact      660
accatcaaat tgacacgtgc tctttggatt attccgatgg catttgctac ttcgttcata      720
tttaagagca aagggcagaa gattagtatt ccttggttta tcttcttctt tgtattggct      780
atgattgtga atacttattt gttgggtagt gtacctgaat tgggggccgc tatcaatggg      840
ttggctcgca aaacattgac tatcactatg ttctttattg gagcttctct ctcattggat      900
gttgtgaagt ccgtaggcat caaacctttg atacaaggag tgcttctgtg ggtagtgatc      960
agtttgagca ctctggccta tatttattgg ttctaa                                996
```

\<210\> 3125
\<211\> 432
\<212\> DNA
\<213\> B.fragilis

\<400\> 3125
```
aaaaaatatc caattttgaa gccaattata aacagaccta acaatatgga agatttttaaa      60
aagaaaatag gaacagacat gaatgataaa gagatcgtat tctcaaaatc aataaaggcc      120
ggtaaacgta tatattacct ggacgttaaa aagaaccgca aagatgaaat gtttcttgcc      180
attaccgaaa gcaagaaagt tgtgatgggc gaaggagatg actctcaagt aagctttgaa      240
aagcacaaaa ttttcttgta taaagaggat tttggtaaat tcatggccgg actcgaacaa      300
gctatcaact tcatcaatca gaatcaagaa tatacagaag attccgaatc ggaggaaaaa      360
gtcgaacctg aaagtgaacc ggagactaca gttttggata gcgaaatcaa gattgacatt      420
gattttgaat aa                                                          432
```

\<210\> 3126
\<211\> 423
\<212\> DNA
\<213\> B.fragilis

\<400\> 3126
```
tatactatgt taaagactat tttgtctatc tccggcaaac cggggttgta taagcttatt      60
tcgcagggta aaaatatgtt gattgtagaa acaattgatg cagctaagaa acgtttccct      120
gcttatggta acgaaaaaat tatctctctg gcagatatag caatgtacac aaacgattca      180
gaagtgcctt tacgtgacgt gttgcgttca ataaaagaaa agaaaaatgc agctatcgct      240
tctatagatg tgaagaaagc tacttctgag caattacgtg aatatttggc tgaggttttg      300
cctgactttg atcgtgacag agtatatacc aatgatatca agaaattgat tttgtggtat      360
aatatcttag tctctaacgg aattacagac tttggtgaag agactgccgt tgaagcagaa      420
taa                                                                    423
```

\<210\> 3127
\<211\> 825
\<212\> DNA
\<213\> B.fragilis

\<400\> 3127
```
tccttccagc cccgtggtga agacttcctc ggctacaggc ctggcgtata tgttatcggt      60
gacaagatag tctatatcga gaacagcgat ggtaacacga atgtgcgttt tcatcaggca      120
gacacccata agagattctt cgctcttctg gaatcccaga acatccgtgt aaatcgcttc      180
agggcagact gcggttcctg ctcgaaggaa atcgtcagtg agatagagaa gcattgcaaa      240
catttctaca tccgtgccaa ccgatgcagt tcgctctaca atgacatctt tgctctgaga      300
ggatggaaga cggaggagat taacggcatc cagttcgaac tcaattccat tctcgttgag      360
aaatgggaag gcaagtgcta tcgtcttgtc atccagagac aaagacgcaa cagtggcgac      420
cttgacctgt gggaaggcga atacacttac cgttgtattc tgaccaacga ttacaagtca      480
tcgacaaggg acattgttga attctacaat ctgcgtggcg gcaaggaacg tatctttgac      540
gacatgaaca acggattcgg ttggagcagg ctccccaagt cattcatggc ggagaatact      600
gtctttcttc tgcttactgc attgatacac aatttctaca agaccatcat gagcaggctt      660
```

```
gacaccaagg cttttgggct caagaaaacg agtcgcataa aggcttttgt cttcagattc    720
atctccgtac ctgccaagtg gatcatgact gcaaggcaat acgtgctgaa tatctacaca    780
gagaaccgag cttatgcaaa acccttcaaa acagaattcg gataa                    825
```

<210> 3128
<211> 2607
<212> DNA
<213> B.fragilis

<400> 3128

```
gaaaggagaa caaacgatat gaactttaac aattttacca ttaaatctca ggaagctgta     60
caagaggcta ttaacctggc acaaagtcgg ggacaacaag ccatcgaaac ggctcatatc    120
ctgtacggag tgatgaaggt aggcgaaaat gtgactaact ttatctttca gaagttagga    180
ctgaacggac aacaaatctc cctcgtactc gataagcaga tcgactcttt cccaaaagtt    240
tccggcggag aaccttactt gagtagggaa gcgaacgaag tctttcaaaa agcaacgcag    300
tactccaagg aaatgggcga tgagtttgtt tcattggaac atcttttgct ggctttactg    360
acagtaaaga gcacggtgtc taccatcctg aaagatgcag gaatgaccga aaaagaattg    420
cgtggtgcca tcagtgaatt gagaaaagga gaaaaggtga cctctcagtc cagtgaagat    480
aattaccagt cactggaaaa atatgccatt aacttaaatg aagcagcccg tagtggtaaa    540
ctcgaccctg tgatcggacg tgatgaagaa atccgacggg tacttcagat tttaagtcga    600
cgtacaaaaa acaatcctat attaataggt gaaccgggta ccggtaaaac agctattgtt    660
gagggattgg cacaccgtat tcttcggggt gatgttcctg aaaacctgaa aaataaacag    720
gtatactcac ttgatatggg tgcactcgtt gcaggagcta aatataaagg agaatttgag    780
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aatattctga aacctgcact tgcccgtgga gaactacgct ctatcggtgc taccactctc    960
gacgaatatc agaaatattt tgagaaagat aaagctttgg aacgtcgttt ccaaatagta   1020
caggtagatg aaccggacaa tctgagcaca atatctatct tacgtggatt aaaagaacgg   1080
tatgaaaatc accatcacgt acgtatcaaa gatgatgcaa tcattgctgc cgtagaatta   1140
agcagccggt acatcactga ccgttttta cccgataaag caattgacct gatggacgaa   1200
gctgccgcaa aacttcgcat ggaggtggat tctgtccctg aaggattaga tgaaatctca   1260
cgaaagatta aacagctgga gattgagcga gaagctataa acgggaaaa tgatgaaccg   1320
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gcaaaatggc aaagcgagaa aagcctgatg gatataatcc agcagaacaa agttgaaata   1440
gaaatctta aattcgaagc tgacaaggca gaacgtgagg gaaactatgg caaagttgca   1500
gagattcgct atggcaaatt gcaggaactg cataaggaaa ttgaagatac ccagaaaaaa   1560
ttgcacgaaa tgcaagggga tacagccatg ataaaagaag aggtggatgc tgaagacatc   1620
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cctattggtt ccttcatctt cctgggcact acaggagttg gtaaaaccga acttgccaaa   1860
gcgcttccg aatttctgtt tgacgatgaa acgatgatga cccgtatcga catgagcgaa   1920
taccaggaga agcacagcgt ttcgcgttta gttggagcgc ctccgggata tgtaggatat   1980
gacgaaggcg gacaattgac agaggcgatc cgtcgcaaac cctattctgt agtattgttt   2040
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ggacggttga cagataacaa aggccgtgtg gtaaacttta aaaatacaat catcattatg   2160
acctccaata tgggcagcag ctacatacag agccagatgg aaaaactgaa cggcgccaac   2220
aacgaggaag tagtggaaga aaccaagaaa gaggtaatga acatgttaaa gaaaaccatc   2280
cgtccggaat tcctaaaccg tatcgatgag actatcatgt tcctgccatt aacagaaaaa   2340
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ggagtagaac tagaactgac agatgcggct ttggatttcc tctcacaggt cggctatgat   2460
ccggaattcg gtgcacgtcc tgtaaaaagg gctattcaga gatatttact caacgatcta   2520
tcgaaaaaat tattggcaca ggaagtagac cgtagtaaag caatcattgt agatgcacaa   2580
ggagacgggt tagttttccg taactaa                                       2607
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<210> 3129
<211> 279
<212> DNA
<213> B.fragilis

<400> 3129
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gctgttcttg caggactata tgaaatttgc atagaatatt ttagagaact tatttgtcgt    60
attcagggct ttttaattat ctttgttgca atccgtcgga acctgaagag tcagtgttac   120
gaggaatatt acacaaaaag aacaaaagcg tttttaagat attattctgt acttgaaatc   180
tggacaattt cactattcag gaataatgta acgaacgctc atgctctgct gtatatgcaa   240
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<210> 3130
<211> 1296
<212> DNA
<213> B.fragilis

<400> 3130
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tatgacatgg caaaaataca aattaaatct gagaaactca caccttttgg aggaattttt    60
tcaatcatgg agaaatttga ctccatgctt tcacccgtta tcgactcaac actgggtcag   120
agatgcagca gtatcttcgg atatcagttc agcgagatag tccgttcgct gatgagcgtt   180
tatttctgtg gcggctcatg cgtggaagat gtaacgtcac aactgatgcg ccatctctcg   240
tatcatccta cccttcgtac atgcagctct gataccatcc tcagagccat caaggaactg   300
acacaggaaa acatctccta tacttccgac caaggcaaga cctatgattt caatactgca   360
gacaaactca acacattgct tataaacgct ttggtttcta caggcgagtt gaaggaaatt   420
gaggaatacg atgttgactt tgaccatcag ttccttgaaa cggagaagta tgatgcaaaa   480
ccgacctaca aaaagttcct cggctacagg cctggcgtat atgttatcgg tgacaagata   540
gtctatatcg agaacagcga tggtaacacg aatgtgcgtt ttcatcaggc agacacccat   600
aagagattct cgctcttct ggaatcccag aacatccgtg taaatcgctt cagggcagac   660
tgcggttcct gctcgaagga aatcgtcagt gagatagaga agcattgcaa acatttctac   720
atccgtgcca accgatgcag ttcgctctac aatgacatct ttgctctgag aggatggaag   780
acggaggaga ttaacggcat ccagttcgaa ctcaattcca ttctcgttga gaaatgggaa   840
ggcaagtgct atcgtcttgt catccagaga caaagacgca acagtggcga ccttgacctg   900
tgggaaggcg aatacactta ccgttgtatt ctgaccaacg attacaagtc atcgacaagg   960
gacattgttg aattctacaa tctgcgtggc ggcaaggaac gtatctttga cgacatgaac  1020
aacggattcg gttggagcag gctccccaag tcattcatgg cggagaatac tgtctttctt  1080
ctgcttactg cattgataca caatttctac aagaccatca tgagcaggct tgacaccaag  1140
gcttttgggc tcaagaaaac gagtcgcata aaggcttttg tcttcagatt catctccgta  1200
cctgccaagt ggatcatgac tgcaaggcaa tacgtgctga atatctacac agagaaccga  1260
gcttatgcaa aacccttcaa aacagaattc ggataa                           1296
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<210> 3131
<211> 570
<212> DNA
<213> B.fragilis

<400> 3131
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aacaatatgc ctaaccctaa ggtaagtcaa tcggcatatt tattattgga agaatcatca   120
aaaatgaacg taggagataa agccccagaa ttgctgggta tcaatgaaaa gggtgaagag   180
gtacgcctca caactataa aggaagaaaa attgtccttt atttctaccc taaagataac   240
acttccggct gtacggccca agcctgtagc cttcgggata attacgcaga gctacgtaaa   300
gccggatatg aagtgatcgg tgtaagtgta gacaatgaaa agtcacacca gaaatttatt   360
gagaaaaaca atctgccatt caccctgatt gccgataccg ataaaaaatt ggtagaacaa   420
tttggagtat ggggagaaaa aaagctatat ggccgtgctt atatgggtac tttacgcaca   480
actttcctta tcaatgaaga gggagttatc gaacggatca tcggacccaa agaggtaaag   540
accaaagaac acgcttcaca aattttataa                                   570
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<210> 3132
<211> 1224
<212> DNA
<213> B.fragilis

<400> 3132
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ggtgtaggta ccgttgtagc acacaaagtg gcacaaaatg ccgatgtatt tactgatatc     120
atgatcgcca gccgcacgaa gtcaaaatgt gacgacatcg tgaaagccat cggcaatccc     180
aacataaaaa cagcccaagt ggatgctgat aatgtggacg aactggtagc actcttcaac     240
gattttaaac cggaaatggt cattaacgtt gcattgcctt atcaggacct gaccatcatg     300
gaagcctgcc taaaagcagg agtcaactac ctggataccg ctaattatga gcctaaagat     360
gaagctcact ttgagtacag ttggcaatgg gcctatcatg aacgtttcaa agaagccggc     420
ctcaccgcca tttaggttg tggattcgat ccgggagtaa gtggtattta tacggcatat     480
gccgccaaac attattttga tgagattcaa tatctggata tagtagactg caatgccgga     540
aatcatcata aagcttttgc aacaaacttc aatccggaaa tcaatatccg cgagatcacc     600
cagaacggac gttattatga aaatggccaa tgggtgacca caggtccact ggaaattcat     660
aaagatctga catatccaaa catcggtccc cgtgattcat atctgttgta tcacgaagaa     720
ttggaatcat tagtcaaaaa cttcccgacc atcaaacgag cacgtttctg gatgacattc     780
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gaaatagatt acaatggaca aaagatcgtt ccgctgcaat tcctgaaagc cgtgttacct     900
aatcctcagg atttgggtga aaattacgaa ggtgaaactt ctatcggttg ccgcattcgt     960
ggtctgaaag atggcaaaga acgcacctac tatgtatata ataactgtag tcacgaagag    1020
gcatataaag aaacaggtat gcaaggagta agttatacca caggcgtacc ggctatgatc    1080
ggtgccatga tgttctttaa aggcgaatgg aaacgtccgg gtgtaaacaa cgtggaagag    1140
tttaatccgg atccgtttat ggaacaattg aataaacaag cttgccttg gcacgaagta    1200
ttcgatggaa atttggaact gtaa                                           1224
```

<210> 3133
<211> 318
<212> DNA
<213> B.fragilis

<400> 3133
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catgttcatt acctctttct tggtttcttc cactacttcc tcgttgttgg cgccgttcag      60
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atttttaaag tttaccacac ggcctttgtt atctgtcaac cgtccgtcat cgagtacctg     180
caacaagata ttaaatacat ccggatgtgc tttctcgatt tcatcaaaca atactacaga     240
atagggtttg cgacggatcg cctctgtcaa ttgtccgcct tcgtcatatc ctacatatcc     300
cggaggcgct ccaactaa                                                   318
```

<210> 3134
<211> 732
<212> DNA
<213> B.fragilis

<400> 3134
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gaaatgaatt tagaagaagt cttaaattat cgtcgttccg tgcgggtgtt tgataaaacg      60
aagccgttgg accctgagaa agtgaaacat tgtctggaac tggcaacatt ggcgcctaac     120
agttcaaata tgcaattgtg ggagttttat caagtcatac agccggaatt gctggcaaaa     180
atatccaaag cctgccttga tcagaccgca acttcaacgg cttcggaggt tgttgttttt     240
gttacgcgtc aggatttata ccggagccgg gcaaagttcg tgcttgattt tgaaagagga     300
aacgtgagac gaaacagtcc caaagaacgt caggaaaaac gtattaaaga cagagagctc     360
tattatggaa agctaatgcc gtttctgtat gcccgctttt ttaggatact gggactcctg     420
agatctgtat tggctaaggc tatcggcctt ttccgcccca ttgtgcgtga agtttccgaa     480
agtgatatgc gtgttgtcgt ccacaaatct tgtgcactgg ctgcccagac atttatgatt     540
gccatggcaa acgaaggata tgatacctgc cctttggagg ctttgacag caaacaaatg     600
aagaaactat tgaagttgcc tcatggggcc gaagtgaaca tggtgatcgc ctgtggaata     660
cgggatggaa acaaaggaat ctggggtgaa cggggcagag taccgtttga tgaagtttat     720
catagagttt aa                                                        732
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<210> 3135
<211> 633
<212> DNA

<213> B.fragilis

<400> 3135
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agtgtcgttt cacatttact tgaagtgatg ggagttcctg tctatatctc ggatgaagag   120
tcaaagaaag tagtggccac tgatcctgtt attcgtaaag agttgtgtga tttagtagga   180
gaggaggttt tttctggcgg caaattaaat aagactttac tggccacata tcttttcgct   240
tcttcgacgc atgcttctca ggttaatgga atcatacatc cgagggttaa ggagcatttc   300
aggcaatgga gttcacacaa agagtgtctg gatataatag gtatggaatc ggcaattctg   360
atagaatcgg gctttgcgga tgaagttgat tgtatagtga tggtctacgc gcctttggaa   420
ctcagggtag aacgtgcggt gcggcgtgac aatgcttcat gcgagcagat tatgcagcgt   480
atccggagcc aaatgagtga tgaagaaaaa tgtgagaggg cttctttcgt cataataaac   540
gatggtgaaa agccgttgat accacagatt ttagagctaa ttgcttttct atatcaaaag   600
attcattacc tttgctccgc aaaaaataac taa   633

<210> 3136
<211> 252
<212> DNA
<213> B.fragilis

<400> 3136
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gtgttgcaaa aagaaaacaa gcaaaactct aatatgacat ggcaaaaata caaattaaat   120
ctgagaaact cacacctttt ggaggaattt tttcaatcat ggagaaattt gactccatgc   180
tttcacccgt tatcgactca acactgggtc agagatgcag cagtatcttc ggatatcagt   240
tcagcgagat ag   252

<210> 3137
<211> 351
<212> DNA
<213> B.fragilis

<400> 3137
aaaactaata aaactgatta ttttatgaac ctattaactg tattttttca agctcctgct   60
gctggccctg acggtagttt gatgtggatc atgctgatag caatgtttgt tatcatgtat   120
ttcttcatga ttcgtccgca gaacaagaag cagaaagaga tcgctaattt ccgcaaatct   180
ctccaggtta accagaatgt gattactgct ggtggcattc atggtgtgat taaggaaatc   240
aatgatgatt acattgttct tgaaatcgct tctaatgtaa aaattaagat agataagaac   300
tctatttttg cagatgcttc tgctgccaac agtcagtctg ctacgaaata a   351

<210> 3138
<211> 537
<212> DNA
<213> B.fragilis

<400> 3138
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gatgaatcag ttcaacaaaa ataattatt cattttcaa ttcataatca aatgcctgaa   120
gcaagaatag ataaatggat gtgggcagtc cgcatcttca aaactcgcac aatcgctgca   180
gaagcctgca agaaaggacg aatcagcatc aatgggtcgt ttgtaaaagc agctcgtatg   240
ataaaacccg gagacgtaat ccaagtgaaa aaacctccga taacatattc cttttaaagtc   300
ctgcaagcca ttgaaaaacg ggtgggtgca aaacttgtat ctgaaatgat ggaaaatgta   360
acaacccctg atcaatatga acttctggag atgagtaaaa tcagcggttt tattgatcgg   420
gcacgaggta cgggacgtcc aactaaaaaa gatcgccgga gcattgagga atttaccact   480
cccgaattta tggatgactt cgattttgat ttcgacttcg aagaagataa tgaataa   537

<210> 3139
<211> 1272
<212> DNA

<213> B.fragilis

<400> 3139
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tctcttatga accaaaagcg caatcaaacc aaagtcgtaa acgtgtttac cgtatttatg    60
gtaatgctga tattgtattt tatcgtggga cttttcaccg tcatcaatca acaattccag   120
ataccgttac aaacagctat gctgccccac gatggtaata tcaccaatgc attggtgaca   180
atgctgaatt tttcatggtt tcttgcctat cccctatccg aaggattcgg aacacgatgg   240
ctggaaaaat acggataccg aaaaacatct tatcttgcct tactgatact tatcgccgga   300
ctggcaatct acgaagcagc tgtgcttttc catatatata cgcccatgca ggtctccatc   360
atcggaaatc acatttctgt cggcttttc atttttctga tcggctcttt tgtgatcggt   420
gtagccgcaa cgatcctgca agtagtgctc aatctatatc tcacagtttg ccggattggt   480
aaaacaacag ccttgcagcg acagatgatc ggcggaacaa gcaactcgat aggtatggct   540
atcgctccgt. tggtaatcag ttatctgata tttcacggaa caccttttgca cgacatcgtg   600
acgaagcagt tcattattcc actgatcata ttgattctga tcatgctgat tattactctt   660
ttagttggta aaacacaaat gccttctatc gacaatgtac gccaagcacc gggagaaaaa   720
tttgataaaa gcgtatggtc ctttagaaac ctgaaattag gggtatgggg tatttttcttc   780
tatgtaggca tcgaggtggc cgtcggagct aatgtcaata tgtatgcatc cgaactcgga   840
ggatcgttcg cctcaaacgc tacccacatg gctgccttat attggggatt gctgttattg   900
ggacgcttct taggctcctt tatcaagcag gtcccttccg aaaagcaact ggtgatagcc   960
tccatcggag ccatcgtact actcgtgctt gctatgctga cggccaatcc ctggatattg  1020
acattgatag gctttttcca ttccatcatg tggccggcca tttttacatt ggcaaccgac  1080
caactgggga aatataccac taaggcatcc ggagtgctga caatgggagt catcggcgga  1140
ggtattatcc ctcttttaca aggaatcttt gccgatgtga tgggtggcaa ctggctttgg  1200
acatggctgt tggtcatcgc cggggaagct tacattttgt attatggcct aaatggatac  1260
aaacaacatt aa                                                      1272
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<210> 3140
<211> 690
<212> DNA
<213> B.fragilis

<400> 3140
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tgccaggcac aaaaaaactt attcaacaag tacaatgaca tgaaaggggt atcctctgtt   120
tatatctcta aagcaatgat ggaattaaat ccgaatctat ttatgaagga cctttatata   180
ggtaaagtag cagaacattt gaactctgtc caagtgctct ctacacatga taataaggta   240
cgtgaagaaa tggccaaaga tatccgttca ttggtgcaat catccaaata cgaattattg   300
atgaaacaaa aaagtacggt ttccggttcg gaagtttatg taaatcgcaa aggaagtaaa   360
gtgaaagaac tgattatggt aatgaacgga gcatcttctc taaaatttgt atatatggaa   420
ggggacatga ctacggatga tatcaagaag ttaatgttat accaaagcac cagtcaaaac   480
tttataaatat caggagatct gttttatgca aataataaac cggttactta ctttaaaaaa   540
ggaaattcgg acaatcaaaa agacatggca gagttaagcg gaacctataa tttaaattcg   600
atagatacga attataaaga gaactaagt accttaaacg acaaattaaa aagaattgac   660
caagggctca aaaacatgaa tataaagtag                                    690
```

<210> 3141
<211> 570
<212> DNA
<213> B.fragilis

<400> 3141
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aaagatatga aatacttaat tgtcgggtta ggcaatattg gtccggaata tcatgaaacc    60
cgccataata taggtttat ggtattggat gctttagcca gagcaaacaa cctatcattc   120
acagatggtc gttatggctt taccactacc ctatctgtca aaggaagaca aatgatcttg   180
ttaaaaccct cgacattcat gaatctaagc ggcaacgccg tacgttattg gatgcaaaaa   240
gaaaacattc cattagaaaa cgtattaatc attgtagatg acttagcact tcccttggt   300
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actatcttgg gcacccaaaa ctatgcgcgc ttgagatttg gtatcggtaa tgattttcca   420
agaggcggac aaatagactt tgtattgggg catttcacgg acgaagactg gaaaacaatg   480
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gatgaacgtt tggaaacagc cggagaaatc gccaaaagct tctgtttggc aggtatcgac   540
atcacgatga atcagttcaa caaaaaataa                                     570
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<210> 3142
<211> 1086
<212> DNA
<213> B.fragilis

<400> 3142
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gaattaaact ttgaaacaga taataataaa atggcatcaa gcgaaaaatt aaaagcctta   120
caggctgcca tggacaagat agagaaaagc ttcggtaaag gttctatcat gaaaatgggt   180
gaagaagtgg tagaacaagt agaagtaatt ccaacaggtt cgatagcact gaatgctgca   240
ttaggcgtag gcggttatcc ccgtggaaga atcattgaaa tttatggtcc ggaatcatct   300
ggtaaaacga cactggccat ccacgccatt gcagaagcac aaaaagccgg tggaattgcc   360
gctttcattg atgcggaaca tgcttttgac cgcttctatg cggctaaact gggagtagat   420
gtggataacc tgttcatctc gcaacccgat aacggagaac aggcgttgga aattgcagag   480
caattgatac gctcttcagc tattgacatc atcgtagtgg actctgtagc cgccttgact   540
ccgaaagctg aaattgaagg ggatatgggt gacaacaaag tgggcttgca agcccgccta   600
atgtcacagg cattacgtaa gttaacatca gctgtaagca agactcgtac aacctgtatc   660
ttcatcaacc agttgcgtga gaaaatcggt gtaatgttcg gtaatccgga gacaacaacc   720
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tcgggagaaa tcattgacct gggagcggat ttgggaatta tcaagaaaag cggttcatgg   960
tatagctaca acgacacaaa attgggccaa ggtcgcgatg cagcaaaaca atgtatcgcc   1020
gacaatccag aacttgctga agaactggaa ggactgatct ttgaaaagtt gagagagcac   1080
aagtaa                                                              1086
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<210> 3143
<211> 600
<212> DNA
<213> B.fragilis

<400> 3143
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ttattaagga attacgatat ggacgaaaaa ataaagtttc cttcgaatgt ggtactgatt   60
gatgcagcgt ttctgaatct agttgtgacg gatctgaaga agtactttga gaaaaccttg   120
atgcgtgaac tgcaagagat tgatctctcg gaactggtaa cttatatagt acttgatgca   180
ggtatggcag taggcgataa tcaaattcaa atattaatgg tatatgataa agattcggct   240
cagttgtcta attccgacc ttccgattta tcggcagaat tgaatggggt ggcatttaag   300
agtcagttcg gagaattttc ttttgccagt gtaccttgtg aggaaatggt atctcgtgaa   360
gaattatatt tggatctgct gagtatcgtt ttagattctg ccgatgtgga acggctgatt   420
ttggtttctt tcaatgaaga atatggtgat aaggtaatgg aacggttaaa aggtgtcaag   480
aataaggaaa ccattcagtt ccgtatgaat gaaccggagg agagtattga aggatatcaa   540
tgggaaatgt tggcatatcc cgtgatgcaa gcattgggaa tcaggggaga agagttgtaa   600
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<210> 3144
<211> 705
<212> DNA
<213> B.fragilis

<400> 3144
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gaggcagggt atgaaataac cgtcgcaagc cccaagggcg gcaatgttcc tgttgatccg   180
gagagtctaa aaccgatgat gttggacaaa ctttctaagg attattggga tgatcttgaa   240
ttcaggcgtg aattgcagca tgcaaaaagt ttagccgaag tttccggaca gctatttgac   300
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caggcgatta ttgaaaagca ttatgagagt gataaagcag tagcggccat ctgtcatggt   420
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```
gtaagcgggc ttttgaatgt taaactgtcc ggaggagagt atcttatcaa agataaaaag      480
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gaccttgagg ctgcactcga aaagagagga gccgactacg agaaggcatt gattccgatg      600
acctcgaaag tagtggtgga ctgtaacctg ataacgggac aaaacccgtt cagttcaaaa      660
gaaatggcag aagttgtaat gcggcagttg agtcgcgaaa agtaa                     705
```

<210> 3145
<211> 864
<212> DNA
<213> B.fragilis

<400> 3145
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aacagtatga caatgaaaaa agtattactt tcaatttgta tggtgagtgc agtattcgct      120
atgtcatctt gcggttcgac aaaagaagcc gcttctttat catctttaaa tggtgaatgg      180
aatattattg aagtgaatgg ctcggccatt gtgccggcag aaaatcagga attgccgttt      240
attggttttg atacagctac gggtaaagta tatggtaata gtggttgtaa ccgtatgatg      300
ggatctatag atctcaattc aaaacccggt actatcgata tgagccgatt ggggagtacc      360
cgtatggctt gtccggatat gacaacagaa caaaatgtgc tgaatgcatt gggacaggtg      420
aagagttata aaaaactggg taaacataat atggctcttt gcaacgcttc caatcgtccg      480
gtagtcgttc ttcagaagaa agcttcggat gtaaagttgt ctgctttgaa tggtgaatgg      540
aaaatcgaag aagtgaatgg agaagctatc ccttcgggca tggaaaaaca accgtttatc      600
aattttgacg tgaagaagaa gtccattcat ggcaatgcgg gatgtaattt gattaatgga      660
ggatttgaaa cagataagga gaatccccgt tccatttctt tccctaatgt tatttctact      720
atgatggctt gtcctgatat ggaagtggaa ggcaaagtga tgaaagctat caacgaggtg      780
aagtcattcg atgtgttatc cggaggaggt atcggatttt atagtgcaga cggaacactg      840
gtaatggtac ttgtgaaaaa ataa                                            864
```

<210> 3146
<211> 591
<212> DNA
<213> B.fragilis

<400> 3146
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acgtccgtgt gctactgtca cgggcaagaa aaaagatacg tgaagaattt aataaatgga       60
ataattatga aagtcgaaga aattgaaagg ctgctcgccg aattttatga gggaaccact      120
accgagagcc aagaagaggt gctgagaaat tatttcagaa caacggaagt gcccggacat      180
ctgctgaagg acaaagaaat ttttctcaat cttttgcccg gatgccgacca agatatagaa      240
gttcctgcac atctggaaga caaactaaat ctgctgattg acgaaatggc cgagaaagaa      300
caacactttt tccgccccaa taactccaaa aacagctggc gctggattgg aggggttgca      360
gctaccatat tattgcttat aggcattgga tacgggattg acaatttaag caaaaatgtg      420
tgcccaccca ccccacaaga tacattctcc gatccggaag aagcctaccg gatgttacag      480
gcaactttac tggagatttc tgccaacctc aactatggac tcaatgaggt gaaagaaagc      540
cagatagata tgagaaaaat acatcaagaa gtaagaaatg aaattaaata a              591
```

<210> 3147
<211> 786
<212> DNA
<213> B.fragilis

<400> 3147
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aaaaagtatc gtatgaaaat aaaaagactt ttagtgttgg ccgttctacc catgctgtgt       60
cttgcagtga atgcacagaa ctccagtaaa gacaatactc taaaaaagg agactttact      120
gtagcagcta ctgttggata caatagttac acaagtgtca cagccccttc ggggctgctg      180
actgactatg aagtcagagc gctctcaacc aactgggcag acaaaaagct gatggttggt      240
tttgaaggag gctggttctt caaagatcag tggaaactaa atttgggtgg cggtgtcagc      300
ttcacgaata accccggtta tccggctgtt cccggcacaa tagacgattc gaataagaat      360
aactcggctg acgagaatat gggagagatt cctaactatc gtgccgtagc cgatgctcag      420
tcgttcgcct ataatgtgtc agcaggtgtt gatcgttatt tcaacatcaa gcgtgttcct      480
```

```
aacctgatgt ggtatacagg tattcgcgta ggttttgctt acggtgaaaa tgaaatgaag      540
tatgatgaag agacctctat gggcaaatct attgccgaga gttggaatct tcgcggcgct      600
ttgactatcg gtgtcgacta ctttgttctt cctgcactct atatcggtgc gcagattgat      660
ccgtttgcat atacgtataa taagactacg tataacccac aagcaggtct tggcgatctg      720
tcggcagaca gccacaacta cagtgtgctg gccgctccga catttaagat cggatttaag      780
ttttga                                                                 786
```

<210> 3148
<211> 216
<212> DNA
<213> B.fragilis

<400> 3148
```
catgcgaata gcattttgaa atcattcaag tacttcagac ttcgattttg ttacgacatc       60
cgtcaacaat cctttattgt gatcaaaata tcctctaaat acaaaatgcg tgaattgtac      120
tatcgcaaaa tctacacgtt tttatcctat ctgttccctt tggactataa aaaagcgctt      180
ctccgcattt taaaaataca aaatgacaga ctgtaa                               216
```

<210> 3149
<211> 1023
<212> DNA
<213> B.fragilis

<400> 3149
```
ataaagccta tgttcgaacg taggaacata aagtatattt atttaaaatt atcaagaaag       60
attaaggact ttctgcttag tgataagagc agagagttct taattttttt attttctttt      120
tttattgcag gcggattttg gttgcttcaa acgttaaaca atgattatga agcagaattt      180
tctattcctg tccgtttgaa aggagtgccc aatcatgtgg ttttaacttc tgaacctcct      240
tctgaactcc gcattaaagt aaaagataaa ggaacggtgt tgctgaacta tatgttgggt      300
aaaagctttt ttcccgttaa tatcgatttt tccgagtcga aagtacctga taatcatgtg      360
aaaatttata cgtcggaact tgagaaaaaa atagcaggac aacttaatgt atcgacccgt      420
ttgctgtctg taaagcctga tactctggag tatatctatt ctaccggaaa gtctaaacta      480
gtgcctgtca aattggaagg taaagtcgtt gcagggcgcc aatattatat ttccgatacg      540
atctattctc cggattctgt tttggtatat gcccctgtgg ctatattgga tacaataacg      600
gcagcttata cgcaaaaagt taattttgaa aatgtaatgg atacattgaa gcagcgaata      660
gcgcttgccg gagtaaaggg ggccaaattt gttcccgggg ctattgattt gactttaccc      720
gtggatatat atacggagaa aacagttgaa gtcttattac gtggtatcaa ttttcctgca      780
gataaggtat tgagggcatt tccatctaaa gttcaggtta cgtttcaagt tggattaagt      840
cgttttcgcg aagttaacgc aagtgacttt gttgtgaatg tttcttatga agaacttttg      900
aaattgggta ctgataaata tactgtaaaa ttgaaatctc ttccacgtgg agtaagtcat      960
gtgcgaatcc atccggaaca ggttgatttt ttgatagaac aactctcttc tgatggcaat     1020
taa                                                                   1023
```

<210> 3150
<211> 342
<212> DNA
<213> B.fragilis

<400> 3150
```
aagtacatct ttttcgccaa agatcttcat cttacttatt ctttttttcgc tttctttgta       60
acaaaattcc tcctgttacg tcttaaggat ataaacattg acaagaacga acacatggat      120
accgaaagtt ttaaaagaga gtttctaccc tatcatcgca agctgtactg cgtggcctat      180
cggctattgg agaatgctgc tgatgcggaa gacttagtgc aagaagccta tctgaagctg      240
tgggataaac gggaaggact gtcggttatc agcaatcctg aagcattcag tgtcacttta      300
gtaaaaccta aaatccgcaa ctatcatcca atacacgatt aa                        342
```

<210> 3151
<211> 597
<212> DNA

<213> B.fragilis

<400> 3151
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caaaatataa tcatgaaaag acgcctcaga accttattac tccttctttt gatagccacc    60
agaacattac ttgcacaaaa cagccatttt gcaagttcct cctcccccgg ctccctatca   120
cccgatgaag aaacggattt cataacaaca catttcccct taaagcagtt atgtaaatgg   180
acacccggaa tgaagtttat gttcatcccc gatagtagtg atgaattcgt ccccatatta   240
tgcaaatatg aagatgggaa agaagtcgac aacgatttgc tcaaaagtaa aacgctggaa   300
tataccggtt cggaagaaac tgtacatgaa acgtatatcg gcaagattta tacttcccga   360
ttcatattcc agtgtgaaga tcataaatac tattatgaga tgaaagatgt caaactgaac   420
gatttgtgtg atcaaaatcc gtatgccagc atccctgccc tcgtctatct gcaagatgta   480
aacaaggcca aggaattatt aattgggaaa acgctctata cgcgtactac catagcaaaa   540
acagacgatg ccaacagcta ttcaggatat agagaagtca atatcgcgaa aggttaa      597
```

<210> 3152
<211> 843
<212> DNA
<213> B.fragilis

<400> 3152
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aagatgacaa ttgataatca aaccggtctg gtactcgaag gaggaggtat gcgcggcgta    60
tttacctgtg gggtactgga ctatctgatg gaccatgata ttcgtttttcc ctatacaatc   120
ggggtctctg cgggagcttg caacgggctt tcgtatatgt ctcgccagcg tggacgggcc   180
aagtacagta acatcgactt gttagagaag taccattata tcggattgaa gcatttgctc   240
aagaaacgga atatcctgga cttcgatctt ctctttacgg aatttcccga acatattctt   300
ccttacgatt atcaggcata ctttgattcg cccgaacgat atgtgatggt gactaccaat   360
tgcctgaccg gggaagccga ttactttgag gaaaaaaagg ataagaaccg tgtcatcgac   420
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cctatgctgg atggcggcat tgtagattca attccttttgc aacgtgccat acacgacgga   540
tatcggaata atgtagttgt cctcacccgg aatcatggtt atcggaaaga gaacaaagac   600
atccgtattc ctcctttgt ctatcgtaaa tacccccaaga tgcgggaagc gttaagtcgg   660
cgttgtgctg tgtacaatga acagttagag atggtagagc gtatggaaga ggaggggggac   720
atccttgtca tccgtcctca gaagcctgtt gtagtggacc gcattgaacg tgatattcaa   780
aaactgaccg atctctatga ggaaggatac gaatgtgcga agcggcagct tgaaaccctc   840
tga                                                                  843
```

<210> 3153
<211> 666
<212> DNA
<213> B.fragilis

<400> 3153
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cctgtcaaaa ttacaacaat agatgtcggt aacaagtcct tcccggtaaa aatcactttt    60
attgaccgca agggagtttc ttattatatt aatgtagcca tgtccaggac caactccggt   120
atggaacctg cagatttca agcggaaaaa agaataaact attttccaaa tgcattttct   180
ttcaccaatc cggatgtcaa aaccagagag tctatccagt ccaaatacat cggacagtct   240
gtttatcctc aaaagacaat tcgagtcaag caaacagagt tattacgtta taccccatta   300
catatcaaag atgtacaacc tgaaaaggca ggaacatcag ctacactcct tctgacagat   360
attcatggaa acacatatca agtcaaagta gatttgaaat atgatccgat ccttaaaaat   420
gaagatttca tagaggacct tttcggattc tccgacatac gaaagaaata tccaaacatt   480
agtgaatcca actggcttat gcttgccaaa ggagaagtaa aaccaggcat gacaaccgaa   540
gaatgcaaat tagcaatagg agaaccgata gaaatcagag ttcggacaga ctcccgcttt   600
gaaacctggt tatatagagg aaagatattg gaatttgaaa atggcatctt gctccgggct   660
aaataa                                                               666
```

<210> 3154
<211> 345
<212> DNA
<213> B.fragilis

<400> 3154

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tgttgcggaa ttaaggtaaa aaatatgtgt tttgatttgc ttcgttcagg aaagtatgtt      60
ctgtcccgac aaagcgtgga gctatcagcc gcccaagatg tttttcaacc ggacaatctg     120
gaagcacgtg aaggggtacg acaaataaaa gatattattg cccacttacc cgaacaacag     180
caacgaatca taaatatgcg cgatattaaa ggttgttcat acgaagagat agaacaagtc     240
actggattaa actctataaa cgtccgtgtg ctactgtcac gggcaagaaa aaagatacgt     300
gaagaattta ataaatggaa taattatgaa agtcgaagaa attga                    345
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<210> 3155
<211> 1629
<212> DNA
<213> B.fragilis

<400> 3155

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aaaattgaga ttatgaaaaa gaaactcatg atggtagcag tgcttctggg tgctttgtca      60
ctggggggctt gcgtagacaa caatgaatcg gcatcggtag aagcggtgcg taatgcaaaa     120
gcaaagcaat tagagtctgt tgcgaacatg aataatgcga atgcggatgc taagaaagcc     180
attacagcag ctgaagttgc aataaaagag gctgaagccg cctatcaaaa agcacaagcc     240
gaattggcgc aggcacatgc agatcaacaa aaaatcctat tggagaaagc tcaggctgct     300
ttggaggcag aacttgaagc tgctaaaatt aatgctgaag ctgaattgaa taatgccaaa     360
gctgctttag aatctgctaa agctgctctt attgctgctt tggatcaagt ggatcaggcc     420
aataagacaa gaattacaac tttgttaggt aaagctaatg ggttgctggc aacgatcaat     480
gccgatagac agagtttgat tgatgcaaaa gatcagttgg caagattgaa agctggttta     540
gtgtcagtgg agttgagcaa tcaacaaaca atagctggag aggagaaaaa taaagctgtt     600
gctcaggcat taattgcaga atatgagaag tatagtacta aagataaggc tgatgctgag     660
aaagcagctc aggaagctaa tgctaaattg actgctcttg gccagactcg agatgaaaaa     720
aatactgctg atcgaaatgc gcaacaggct tattgggagg catatagaaa tttgaacggc     780
tctctttatg ttcggacatt gcagcaagca ggtccgtctt actatgatac ggaagatatt     840
cggggagaag ttgtgaatta tacgaacgat gactctacta ccggaacagt ataccctagt     900
tcttatacta aatatattcc taatttggat cgtatcaatg aggcaattac taatcaaaca     960
agatatttga gtgtaagtaa agctgctctt gcagatgcta ataaggcttt gacggatgca    1020
aaggcttctg atacttataa aagtctggca aaggctgtaa ctgatgcgca gaagaaattt    1080
gatgatgcta aaaccgaagc agataaaaat actgctttga gtgaactggg tatagcggag    1140
ggtaatttaa gtgcttacat acaacctttg gaagatgcag ttgatagtgc tactgcacgt    1200
gtggagaagg gtgaaaatag cttgaaggag tataatgacg cattggctgc cgtatcgggt    1260
gataatgcta cggcatatgc taatttatta actgctatgg ataatgctgt taaagcacga    1320
gtggagactc taatagcata ctataaagct gatcataact attctgttca gaacacattg    1380
gcttatacat tacaaactat agctgatggc ttggctgatt atgatcagtt gattttagtc    1440
cagaaacaag ctattgctgc tgctgatgaa aatatagcta atgccgcttc agttgtatca    1500
aaggaacagg ctattgctaa tcaggagaaa accattgctg accttgaaaa tagtttggct    1560
gtaaatgaac ctatttacaa tgattatttta gctcagatca aagctttagt aggtgactct    1620
gcagaataa                                                           1629
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<210> 3156
<211> 909
<212> DNA
<213> B.fragilis

<400> 3156

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gcctttatat ttatgtctga ttttcgtctg aaagtatttt taagcgttgc taagaacctc      60
agtttcacta aggcttcaca agagctgttt gtcagtcagc ctgccataac taaacatatt     120
caggaattag agacttgtta tcaggttcgg ttattcgatc ggcagggaaa taagatttct     180
ttgacagaag cgggtaagct tttgcaggag catagtgaaa agatattgga ggactataag     240
cggttggaat acgaaatgca tttgctgcat aacgaatata taggcgattt gaaattgggt     300
gccagtacta ccatttctca atatgtgctt cctcctttgc ttgctaattt tatagccaag     360
ttccctcaag taaatctttc attattgaat gggaattcca gagagataga ggctgctttg     420
caggagcatc gcattgattt agggctggta gagggcattt gtcgcttgcc caatcttaga     480
tatactacat ttttacagga tgaattagtg gcagttgttc atacaggtag caagctttca     540
```

```
ttgcctgatg agataactcc ggaggatcta tccagaattc cgcttgtact cagggagaga    600
ggttcgggca cactggatgt ttttgagaga gctttgtccg aacataatat gaaattatca    660
tccttgaatg tactttttata tttaggcagt acagagagta tcaagttgtt tttagaacat    720
acagattgta tcggaattgt ttctatccgt tctatcagtc gtgaattact ttcaggtact    780
tttcgtgtta ttgagattaa aggtatgcca atgctacgtg agttctgttt tgcacaaccg    840
caaggacagg agagtgggtt atcacaagtt ttgatgcagt ttgctatgca tcataacaaa    900
aagttatag                                                           909
```

<210> 3157
<211> 1017
<212> DNA
<213> B.fragilis

<400> 3157
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aatactgcat taaaaaatgt gatttatttg tgtaaactca ttaaaaatgt ctacttttgc     60
aattcgttaa taacagtatt aattaagatt atgattaaca gagttcttat tcgtctaaag    120
atcatacaga tagtgtatgc ttactatcaa aacggcagca aaaatttaga ctcagcggag    180
aaagagttgt tctttagcct ctcaaaggct tatgatctgt ataactattt gctgatgctt    240
atgattgctt tgacggaata tgcacaaaaa cgcatcgaca cagcgaaagc taaactagcg    300
ccgactaaag aagagttgta tcctaacatg aagtttgtgg aaaataaatt tgttgcacaa    360
ctcgaagtga ataaacaatt gagcgaattc atagctaatc agaaaaggac ctgggctaat    420
gatcaggact tcattaaaga attatacgaa aagattattg catccgatat atacaaggag    480
tatatggctt cttctgacaa atcttatgaa gcagatcgtg aattatggag aaaactctat    540
aaaactttcg tttttaataa tgattcgtta gatcaggtgt tggaagatca gagtttatat    600
tggaatgatg ataaggagat tgtcgataca tttgtattga agaccattaa gcgttttgaa    660
gaaaaacagg gagctaacca accattgtta cccgagttca aagatgacga agaccaggag    720
tttgcacgcc gtttgttccg tcgggccatt ttaaatgccg actattaccg gcacttgatc    780
agtgaaaata caaagaactg ggatttggat cgtgtagctt tcatggatgt aattattatg    840
caatgtgcat tagcagaaat tcttagtttt ccgaacattc cggtcagcgt ttcgttaaat    900
gagtatgtag agattgctaa actctatagt acagtgaaaa gcggtagctt tatcaatggt    960
acattggacg gaatagttaa tcaattaaaa aaagaaggta agttgacaaa aaactaa      1017
```

<210> 3158
<211> 609
<212> DNA
<213> B.fragilis

<400> 3158
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cacaaaaaat ttcaagaaat gagatcaatt gaagtaaaag gaactgcaag aacaattgca     60
gaacgctctt ctgaacaggc aagagctttg aaagaaattc gtaacaacgg tggtgtacct    120
tgcgtacttt acggtggtga agaagtagtt cacttcacag tgaccaacga aggacttcgt    180
aatttggttt acactccgca tatttatgta gttgatttgg ttattgatgg caaaaaaagta    240
aatgccattc tgaaagatat ccaattccac ccggtaaaag atactatcct gcacgtagac    300
ttctatcaga ttgacgaagc taaacctatt gtaatggaag tacctgtaca gcttgaaggt    360
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aaagctttgt ataatatcat tccggagaaa ctgactatta atgtatctca cctgggtctc    480
ggtaagacag taaaagttgg cgaactaagc tatgaaggtt tagaattgct gaatgcaaaa    540
gaagctgttg tatgtgctgt taagttgact cgtgcagcaa gaggtgcagc tgctgcagcc    600
ggaaaataa                                                           609
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<210> 3159
<211> 327
<212> DNA
<213> B.fragilis

<400> 3159
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caggaggaat tttgttacaa agaaagcgaa aaaagaataa gtaagatgaa gatctttggc     60
gaaaaagatg tacttttaat gactgaatta aaaatagata ctatgagtca aaatgaaaca    120
acaaaattgg acattattgt agaagtatta ggtgagagag agccggagat acgacgtttg    180
```

```
gttatcttgg acgaccggtt aaggatgttt gccgaatcta acgatgaaaa tggtccgggc    240
atacctatcg agttggtagc ggagtgggct acgctgctga ataaatatta tccgttggca    300
ttggaaaaac ggaatatgat gaattaa                                        327
```

<210> 3160
<211> 588
<212> DNA
<213> B.fragilis

<400> 3160
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atttctaaat ctatgaagcc gaatcggaca aaagaagaca ttttactgct ttcccaactt    60
cagcaaggag ataaaaaagc cttcaatact ttgttcagaa ggtattatcc gatattatgc    120
gcttatgccc accgttttgt agacttggaa gatgcggaag aaatagttca ggatgtaatg    180
ttgtggttat gggagaatcg agaaatctta ttgatagaat catcccttag tcaatacttg    240
ttgaaaatga tatatcaccg ttcattaaac cgcatcgcac aaaaggaggt aaagtatcgt    300
gccgatacat tattttatga gaaaagccag gcaatgattt atgacgtgga tttctatcag    360
attgaggagt tgaccaaacg gattcacacc gcgatagtgg agttaccgga atcttaccgg    420
gaagcgttta tcatgcaccg gttcagagat atgagctaca aagaaatcgc acaaactctt    480
aacacctcta ccaaaacagt agattaccgc atacaacagg cactaaaatt attacgtaaa    540
gaactcaaag agttcctgtc gttcgccttg atatttctgg cagcgtaa                 588
```

<210> 3161
<211> 399
<212> DNA
<213> B.fragilis

<400> 3161
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ttgagcggcc ctgtgcagcc ccgtggtgaa gacaatggga cggtagttcg gtgggattgc    60
tccgtattac ttgaaaatgc cggatttaaa gatgcttacc ggacgaaata ccctaatccg    120
gttacacatc cgggctttac attcccgtct gataatgaag gagtgccggt gcagaaactg    180
tcgtgggcac ccgatgctga cgaacgggat cgtatcgact ttatttattt catgccggac    240
aggaaattga aattaaaaga tgtatcggtg gtaggtcctt caaaatcgat cgtccgtagt    300
gaacgtgtgg aggagagtgg taaagattcg tttataactc cgctaggcgt atggccgaca    360
gaccataaag ccgtaatggc tactttttcc ctgagataa                          399
```

<210> 3162
<211> 1836
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1787),(1788),(1807),(1809),(1811),(1812),(1815),(1823),(1824),(1829)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3162
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aagagtaaac cttgtgagct tgtttggcga caagctgaga taaactattt tttaacttta    60
agtcaataca aaattatgca aaattatttt agcatccaat tgttacgggt ggtaaagtct    120
tcgctttggc tgacctcgaa aaaaattcca aaaactatgc gactattcat cctattccta    180
atttgctcta tgagttttgt gcatgcgaca gacagcttcg cacaaaaggt ggaaatcagt    240
attgatgcac agaatcaaac tgtagagaaa gttctgaaag aaatagaaaa gcaatcgggc    300
tttggctttt tctttaataa caaacatgtc aatctgaaaa gagttgtttc tgtttcggtt    360
gataaaagta atatatttaa agtactggat aaaatctttg aagggactga cgtgaaatac    420
tccgttttgg acaaaaagat tattttgtct actgaaatga catcgaagca acaacaagcg    480
gtgaaaatct cgggaaaagt agtcgatgtc aacggagaac cggtgattgg tgccagtatc    540
gttgagaaag ggaccaccaa tggtacggtt accaatttgc agggtgattt ctctctatcg    600
gtcagttcag ataaggcagt gatcgagatt tcctacatcg gataccagcc tcaggaactg    660
aaggtcattg caggaaaacc attgaatgtg acaatgaaag aagatgccca ggctttggaa    720
gaagttgttg tggtaggtta cggttcacag aagaaggtga atgtgattgg ttcaattgct    780
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gctgtggata gcaaaaaact tgaatccaga actgcaccca gtgtttcgaa tatgctgacc    840
ggacaactct ccggagtgac gatcacacag tcgagcggta atccgggaca agaccagggt    900
acgattcggg tacgtggtgt aggctctttc ggagcgactc ccgatccttt ggtactggtc    960
gatggacttc ccggcagtct gaatgatttg aacccggcag atattgaaag tatctctata   1020
ttgaaagatg cctcgtcggc cgccatttat ggttcgcgtg ctgcgaatgg ggttgtactg   1080
gtaaaaacaa aaggtggcca gaaaggtaaa gttaccgtaa gttataacgg atatgtaggc   1140
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aataaggcta tgggtaagga agtttattcg gcggaggaga ttcagaagta taaggatgga   1260
tcagatccgt ataattatcc taatgaacat tatctggata aacttctggg caacaaagga   1320
ctgcaaaccg gtcatgaact gaccgtgaac ggaggaaatg ataagacaca gtatatggtt   1380
tctttcggct atgtaaaaca gaatggtctg atggaacaca atcactacga ccgttacaac   1440
ggcagagtga atctgactac agagttggct aaaaaactga cactgactac ccgtttgggt   1500
ggagtcgttt ctaaacggag cgaaccttct actccgggtg gaatggactc tgccggattt   1560
aaagctttct caagtaatgc acttcgtttt cccggattat gggcaactaa attggaagac   1620
ggatcttacg gcttaggacc gaaggtactc ggaacaccat tggcatggct ggacagcggc   1680
tctttttatc atgaaaactt ccataagttc cgttctaatg tcgagttggc attcacacct   1740
gtgaaaggct taacgctgaa agcgtcttca ccacggggct ggagttnncg atcggcactc   1800
agtttcngng nntcntatcc atnggggnc tctatc                               1836
```

<210> 3163
<211> 1158
<212> DNA
<213> B.fragilis

<400> 3163

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ttcggagaat acaggggcta ttgccggcaa gtatttatat ctttgctact taatttttat    60
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tgtgtgcaga cgctgtttgt ttctgcgcaa gtctatccgg tccgcgcaaa gttgaccgat   180
gaaaagtctt tttcaatgat tcttttaccc gatccgtata gttatacaat ggtcgatgcc   240
cattacgcac tttttgagtt acagacagca tgggtagcca atagcattga atctctgaat   300
ataaaaggtg tgctttgtac cggtgatttg gtggagcaaa atgaaattcg cattccggat   360
ggggtgaacg gcaaccagac aagtgaggag caatggcgtg ctgcttcgcg tgcgtttgag   420
cgactggatg gaaaattgcc ttatgtgatt tgtaccggta atcatgatta tggatatcag   480
aaagcggaaa atcgtttgtg tcatttccct gattactttc ctgcggagag aaactcctgt   540
tggcgcaaga gcctggttgc cgtaggcaac aattatcagg gtataccgac actggaaaat   600
gctgcctatg aatttataac cgatacctgg ggcaaaattc tggttgtttc tctggaattt   660
gctccacgtg atgaggcttt ggcgtgggct aagaaagtgg tcgatgctcc ccgctataaa   720
gaccataaag tgatattgct gacacattca tatctggcat ggacaggaaa agtcattgaa   780
agcgagaact acaaagtgac tcctgccaat tatggaaaag ctatttggga taagttggtc   840
tatccggcaa agaatatttg tatggtgatt tgcggtcacg aatgtgagat tgccgattat   900
aaggataatg tcagttccg gattgataaa aatgcttcag gcaagaatgt tcctcagatg   960
atgtttaatg cgcagactgc cgataagcaa tggttcggta acggtggaga cggatggttg  1020
aggattatgg aattcatgcc tgatggaaaa acgattaaaa tcaaaacatt ctctcctctc  1080
tttgcacttt ctcctcttac ttgtgataaa tcgtggagaa cagattctta tgatcagttc  1140
gacattacga tagagtaa                                                 1158
```

<210> 3164
<211> 1017
<212> DNA
<213> B.fragilis

<400> 3164

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attacaaata tgaactacga agatatagac catttactgc ctcgatattg tgaaggactg    60
gctacggaag aagaatgccg gcaggtggaa agctggatgg aagaatcgga agataaccga   120
aagatagtgg atcaaatcaa cactctttat atagctgtag atacggtcaa cgtaatgcgt   180
aaggtggata cggaaaaagc tctgaaaaag gtcagtagca gaatgatcgt caggaaaaca   240
acttggtggg agtggatgca gcgtgtcgct gctatcttat ttatcccgtt gtccgttgct   300
tttctggtgc aatatatgca caatgggaaa tctgctgtgt gccagatgat ggaaataaaa   360
accaatccgg ggatgacaac ctcggtggta ttgcccgata gtacggttgt ctatctcaat   420
```

```
tcggagtctt ctttacgtta tccttctgtt tttgaaggcg atatacgaaa tgtcgaatta     480
aagggagaag cttattttgc ggtagcaaag gatttgaaaa agaagtttgt agtttccgcc     540
ccgcattcat cgcagataga agtgctgggt acacacttca atgtggaggc ttatgaagac     600
gagccggatg tttcgacaac attggtggaa gggcaggtct gctttcattt tagtgataaa     660
gactatctgg ccaagaaagt ggttatgaaa cccggacaaa ggttggtcta cagttcgacc     720
aatggtgatg tacagttgta cgcaacatcc tgcctgtccg aaaccgcctg gaaagatggt     780
aagattatat ttaataacac tccgttggat gtagcactga ggatgctcga gaagcgcttt     840
aatgtaacat ttaaactaaa gaatgcccgt ttgaagacta atgcctttac aggcacattt     900
actgaacagc ggttggaacg tattctggag tattttaaaa tctcgtccaa gatacagtgg     960
agatatttgg aaagtcctga tattcgggat gaacgaagta taatagaagt ttattga      1017
```

<210> 3165
<211> 291
<212> DNA
<213> B.fragilis

<400> 3165
```
agaaaatccc ggagcatggg aaaaagcggc agcagttcga accggagcgt taccatctct      60
tcccagaaag aggatatcta ccagggaagg gattttgcgg acctggaacc gggagagttc     120
atcggatccg ccacccgtgc caatgtcaga tacttcaagg tgatgctcgg ggagtttaaa     180
gaaaaggatg aaaaaccgct gcccgacgtc cgggttctgg aaccgggaga aatatccggg     240
aattttgcca ggatccttga ggaggtacgc tccctttttcc catgtgaata g              291
```

<210> 3166
<211> 306
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (142)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3166
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gccccggtga taggcatgct tatgagcata tccacccgcc agttcaccat gcagaacaaa      60
gtgcctttcg tatatttctt ggatgaaatg acaacggtca acattaaaag tttcgagtcg     120
ctgctttcgg tcatgcgcga anacaaggtc gcctttgtac tgcttacaca gtccggttca     180
aagctggaga atctgtacgg caagctcgac cgttcatccg tggaagccaa tttcggaatc     240
cagttcttcg ggcgtaccaa ggatgtggaa gccttgaaat attatccgca gatgttcggt     300
aagtag                                                                 306
```

<210> 3167
<211> 651
<212> DNA
<213> B.fragilis

<400> 3167
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gcactctcgg taccttccag ccccgtggtg aagacggcac agatgaagaa attcacccgc      60
gaatgtatgg atgaatatgc ccgtaacttc taccgtgaga aaataaaatc aggggatgac     120
ctggtctggt acggccgcgt ggaaacggaa cgccactata agaatgatga tccggaggtt     180
aaggccggca gggcaaaggc gggagataag aagcccgggc tccagcttca tgtgcatgtg     240
atcgtttccc gcatggacag gacgcagacc gtatcactct ccccgctgtc aaaaagcagg     300
ggaaaccggc aggtacttga aggcagggaa gtcgtggtag gttttgaccg ttcccaatgg     360
tcctcccggt gcgcttcacg cttcaaccag tcatatgact atttccctaa ttactattcc     420
agggatgaaa gcctgaggaa gtactccgag aactggcagg ccaaaaacga actgaagaac     480
gaggcggtat caaagctcaa acaggaagtt ctcaaggggg agctgaagga agaaaggcgt     540
ctgtatgcca acaccttccg gatttaccgg tttgtggtaa accccaagaa ggcaattatt     600
caggaactta aaaggctggg gacggatctt ctttccggaa gggacctgta g              651
```

<210> 3168
<211> 1320
<212> DNA
<213> B.fragilis

<400> 3168

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tacatcatgt caaaaattca gttacgccaa gtctatagag accagttgta caactatcgt    60
cctacgtgga tattaagatg gggaataacc attttcttcg ttttttctttt actggttatt   120
tccgtttctg gatttataag atatccagat attgtacctg ctacagttga aattacaacc   180
ataaatccgc cagcaaatct aatttccaaa gtaaatggaa aaatagaaat catattcaca   240
gaagaaggag aaagtataac aaaaggacaa gtccttgcca tattagagtc accagcacaa   300
tggaaagaca tgaaaatttt agatcattac attacagtcc tagaaaacac aattggaaaa   360
gatagccttt cagtaattcc cgaacccgat tttttgcgca atgatcttga attaggagaa   420
gtacagggac gctatgctga tcttaagctc aattatactg agctatacaa ttttctacat   480
tccggactat ttgaagaaga agtattgtca ttacaagaaa aaaagcaggc acaaaagcaa   540
ttattagtac aagagaatag aaagagagaa cttttaaaaa cacaaatcag acttgcagac   600
aaagaatatc aacgagattc cattctgttt gtaaaggaag tcatttctga aagtgaaata   660
gaacaaagac accaaaacag gcttcagttc caatcttcac ttgtagatat ggaagtcaac   720
atattgaaca ttaaatcctc attaaaacaa ctacgctctg atctaaaaaa aatagaatta   780
aagcataaca ccgacaggca ggagctaaca aataaacttc tacaaagcac gcacttatta   840
aaagcgcaaa cggaaacttg gaaacaaaat tatttaatta ctaccccat agatggtaaa   900
gtaagtttta ctacatattg gagtaagaat caaaacgtca aatcaggtga gcttattttt   960
tctgttgttc ccattgattc tatgacaaca aaagccagac tacaatttcc catacaaat   1020
tcgggaaaga taaaagaagg acaacaagtc aacatcaagt tacaaaatta tccatatcaa   1080
gagttcggaa tgttagtggg tcatctatcc aaaatatcag aagttcctaa tgaactatta   1140
tatagtgcag acgtagtttt agataaagga cttattacgt cttacgggaa aagacttcct   1200
aaagtgcaac aactgaaagg agatgctgaa atcctaacag acgatttgag tctattaatg   1260
cgtttttttca atccattacg ggccattttt gatcacagat taagaaaaca taatcaataa   1320
```

<210> 3169
<211> 1326
<212> DNA
<213> B.fragilis

<400> 3169

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ctttgcatgt caatgaataa acaaatgcac atcagtaacg gaaacaaacg gattctgcaa    60
atagccgttc cctctattat ttccaatatc acagtcccgt tattgggact ggtcgatgtc   120
actattgtag gacatctggg atcggccgcc tacatcggag ccattgctgt aggtggcatg   180
ctgttcaaca tcatttactg gatattcggc tttctacgga tgggcaccag cggcatgact   240
tcccaagcat tcggacaacg taatctggaa gaagtaacaa aactgcttct acgttcagtc   300
ggcgtgggat tgtttatcgc actctgtctg atgactctgc aatatcccat ccaaaaagcc   360
gcatttgctt tcatacagac ttccgacgaa gtagaacgtc tggccactct ctactttcgt   420
atctgcatct ggggggctcc tgccatgctc ggcctttacg gtttttgccgg ctggttcatc   480
ggaatgcaga attcccgttt tccgatgtat atcgctatta cgcagaatat tgtgaatatc   540
ctggcaagtc tttgttttgt attccttttc ggaatgaaag tagaaggagt agctctcgga   600
acgcttatag ctcaatatgc aggtttcctg atggctctgc ttttatggct acgttattat   660
aaacaattgc ggaaacgagt ccattggaga ggcatttggc aaaaacaagc catgtatcgg   720
ttctttcagg taaatcgcga tattttttctc cgtactttgt gcctggtagc tgtaacgatg   780
ttcttcacct ctgccggagc cgcccaaggc gaagtagtac tggctgtaaa cactttatta   840
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cttgccggtc gttatatcgg cgccggtaat cgtatggagc ttcaccgtac cgtccgacag   960
ttattcggat ggggtgtcgg attatcagcc gggttcaccc ttctttacgg tattggtgga   1020
caatcatttc tgggattact gacaaacgaa tcatccgtta tccaggaagc cgacacttac   1080
ttttattggg tattagccat tccccttgcc ggattttccg ccttttttatg ggatggcatt   1140
ttcataggtg ccaccgctac ccgccagatg cttttctcca tgttcatcgc ttctgccagt   1200
tttttttctta cctattacat cttccaagaa gtaatgggaa atcatgcctt gtggatggct   1260
tttattatct acctgtcgct tcgcggactt gtacaagctt ttttagcaaa aaagatagtc   1320
cattaa                                                              1326
```

<210> 3170
<211> 348
<212> DNA
<213> B.fragilis

<400> 3170
aaatatttgt ttatgggact ggaagacgat ttttttgttaa atgacgccga tgatgaaaag   60
accatcgagt tcatccggaa ttatttgcct caggaattga aggaaaagtt ttcggaagac   120
gagttgtact atttcctcga tttgattgat gagtactact ctgaaagcgg aatcctggat   180
gttcagcccg atgctgacgg ttatgttgac atcgacttgg agcaggtagt agaattcatc   240
gtgaaagaag ccaaaaaaga tgaagtgggt gaatatgacc cggaagatat cttatttgtg   300
gtgcagggag aaatggaata cggcaacttt ctgggacagg tggagtaa   348

<210> 3171
<211> 1257
<212> DNA
<213> B.fragilis

<400> 3171
ttgctattgt tagatactat agattcagta ctcataatta tttctcttga ttattatatt   60
attcataata ttgaactcac gttaaatata aataaaatga aaaagatcaa tgcggctttg   120
gtaatatctc tgtttgtaat gacaggatgt ggaggaaata aacaactgac agatgattgc   180
atcacggttg atgttagtgc ggattatcct aaaaaggaac tgatccttca agattttatg   240
gatgtagaat acgttccgtt ggaaactact gacgatttta taactcaagg tattgtgaaa   300
gctaccggta agaaaattct gttggttgca aacagaatta tggatggtaa tatttttgtg   360
tttgacaggg ctactggtaa agggttacgg aagattaacc gtttgggaca aagtggtgaa   420
gaatattcgc atattacgtc tattgttctg gatgaagata taacgaaat gtttgttgta   480
gattatcctg caaggaaaat attggtatat gacttatatg gagagttcaa tagaagtctc   540
ccatttccag atacctgcta ttatgagttt ttatcggact atgaccggga tcatctgatt   600
ggttataaaa gttatttgcc attgatagaa accgacgaat catgccatgt acttatttcc   660
aagaaagacg gaagtgttac acgaaaaatt caaattcctt tcaaagaact cgagacaccg   720
gttgtgacga aagatgaggc gatagtgact ccagtttttt ttctgataac cccgcatgat   780
agtaattgtc tgctgacgaa aacatcatct gatacaatat acaattactt accggatggc   840
actctcagtc cgtttattgt acggactcct tccattcatt ctatggatcc taaagtattt   900
cttttccga ccattatcac tgatcggtat tattttatgc aaactcttga taagaagttt   960
aatttgaaa aggggagagg tttcccgacc aatgatttag tgtatgataa acaggaaaaa 1020
gcaatatttc aatataccgt atataatgat gactttttcta ataaacaccg ggttgcattg 1080
ggacagcaac ccgaaaaatc tgtagatgaa gaaattgtaa cctgtcgtgc tttaaatgct 1140
tcagaccttg tcgaggcgaa cgaaaaagga gaactgaaag gtaagctaaa agaaattgct 1200
gccggactga atgaagaatc gaattcggtg attatgttga taaaacgcaa gaaataa   1257

<210> 3172
<211> 312
<212> DNA
<213> B.fragilis

<400> 3172
gcggccgatc ccagatgtcc tacaatagtg acatcgacca gtcccaataa cgggactgtg   60
atattggaaa taatagaggg aacggctatt tgcagaatcc gtttgtttcc gttactgatg   120
tgcatttgtt tattcattga catgcaaagt tacatgaaaa acagagaata tgaaaatgat   180
gtgaacaatc atgtaattat attggttcgc aacgttctcg atacaggaat taatattatt   240
tttgtctgca tattgaaaga tatcttacag acaattaaca aacatcgcag cgaggtagca   300
ttatcaattt ga   312

<210> 3173
<211> 786
<212> DNA
<213> B.fragilis

<400> 3173

```
agaaatttac caaaaaatta cgtaccgaat atgatgccct accctgaatc tttccctgtc      60
cccccttattc atattgcaaa agcagactcc accaacggtt atttaaatgc cctctgcgaa     120
aaggagaaag ttagcgaact gaccacagta gtggcagact tccagactgc aggcagagga     180
cagcgcggaa acagttggga atcggaagac ggaaaaaacc tgatgttcag cttcgtgttg     240
tatccaactt tcctggaagc acgtaagcaa ttcctgcttt cacaaatcgc ctctttagca     300
gttaaagaga cacttgatct atacatagga gacgtttcta taaaatggcc gaatgacatc     360
tattggaagg acaaaaaaat ctgcggaatg ctgattgaaa acgatctgat gggaatacat     420
atcagccaga gtattgcagg agtaggtatc aatatcaatc agaaagaatt tcacagttct     480
gctcccaatc ccatctcaat catacagatc acccaccggg agtctgaccg tatggaaata     540
ctcgcacaag ttcttcagcg gataaaagaa tactataaga tcttacagga aggagatatt     600
gaatttatca ccgatcgtta tcaggcagct cttttccgca aagaaggcat acacttttat     660
aaagattcag aaggaacatt taatgccgga attgtaggag tagaagctga tggtcatta     720
gttctacaag acgagacggg taagatccgt cgatatctat ttaaagaagt acaatacatt     780
ctttaa                                                                786
```

<210> 3174
<211> 318
<212> DNA
<213> B.fragilis

<400> 3174

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aaaatggctt tagagattac tgacaacaac tttaaggaaa tcctcgcaga aggatcaccg      60
gttgttattg acttttgggc tccttggtgt ggtccttgta agatggtagg tcctatcatc     120
gatgaactgg ctaaagaata tgaaggaaaa gtgatcatgg gtaaatgtga tgtagacgaa     180
aacagtgatc tacctgcaga atttggtatc cgcaatattc ctactgttct attttttaag     240
aatggagaat tggtagacaa acaagtcggt gccgtaggta aacctgcatt tgtagagaaa     300
gttgagaaat tattataa                                                   318
```

<210> 3175
<211> 1332
<212> DNA
<213> B.fragilis

<400> 3175

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agtggaagta cccaaataat tatgttcctg accaaacgtt tctatatact cgtccttgtc      60
gtcatcctct tgttaggtgg cggatacctg ttcggttctc tgtttatcat cggacagtta     120
gggctgcttg cgctgctgct tgctctggct ttcgatggat atctgttgta tcgcaccaag     180
ggtatccagg cttttccgtca gtgtgccgga cgttttttcta acggtgatga taacgaagtc     240
agcctgcgta tagagagccg ttattcctat cccgtccgtt tgatcgtgat agatgaagtg     300
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aagacgctta cctatcggtt gaggccgact cgcaggggag aatacggttt cggattcatc     420
cgcgttttta cgactacccg aatcggatta atatcccgca gggctacctg tggcagacct     480
gaaaccgtta aggtatatcc ttcttacctg atgctccatc gatacgagct gctggctatg     540
agcgataacc tgaccgaact cggtatcaag cgtattcgtc gggctgggca tcagactgag     600
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tacagcgtga tcgataaagg gcgtgtgatg cagcaggctt ccgtggcat gacattgctg     780
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ggtcagatgc agactttgct tgagaacctc tataaacagg aaacaacatt tggtgaaacg     960
gactttctg ccttatgcgg gcacttgggc aagcatgtga ataaacgtag ctttctggtg    1020
ctttatacca attttagtaa tatgaccagc ctgaaccggc aattagttta cctgcaacaa    1080
ttggcccggc aacacagagt attggttgta ttctttgagg atgccgatct gaaagagtat    1140
atagcgggca agtcggtgac taccgaggaa tattaccgtc atgtcatcgc agagaagttt    1200
gcgttcgaga agagactgat tgtgtcaact ttgaaacagc atggcattta ctcgctgctg    1260
acaactcctg ataagctgtc gattgatgtg atcaataaat atctggaaat gaaatcgcgc    1320
cagttactct ga                                                       1332
```

<210> 3176
<211> 867
<212> DNA
<213> B.fragilis

<400> 3176

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ttggaaagaa tgagccaatt tgaagctaat cttgctcaat taatctcaac cggaataccc   120
aatcacactc cctctccagc taccgatgag gcgacatcct ccccccaatga acaggaacaa   180
ctttctcccg aacaagaaga agaaatgaaa ttaaaaatcc aagagcttca acaaaaagaa   240
gaagagttga atctacgtgc tgaaaagttg gataaattag caaaagaact tgaagaacgg   300
cagcagaacc tggagaatag gaatccaaac gatgaacgct ccatagagcc tgcgacgcat   360
cccgatcact cgttcccttc tcaaatcgga gatcaaataa atgcattaaa aaaactattg   420
gaagattctt cttacaaaga taaaatcatt aaggatcttc atgaagaact gcaaagtcat   480
aaccgggatc ttcatgcgga aatcgtaaaa cctcttctga aaacatgat aaaaatgcat    540
gagcgactca cgaaaactta taagtttat gaaaatacgg aagctaaaag ttcccctgaa    600
acttatacga gattattgag agaagtggaa aattgtaaac tgcatattca agatattcta   660
gaagacgaat acgacttaga gtattttgaa ccgacaatag gcagcgcata ttcacctaaa   720
gagcaaacag ccatccgaac agtgatcact gataccccgg aacaagccgg cactattaaa   780
gaatttcatt acggaggctt ccgaaatact accacaaaca aaatatttca accctcaaca   840
gtcactgtat ataaaaaatc agaataa                                       867
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<210> 3177
<211> 723
<212> DNA
<213> B.fragilis

<400> 3177

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tatcaattaa ctaccgaccg ccttatgaat atatccgaat taagtatacg acggccagta    60
ctctcaacgg tactgaccat catcattttg ctctttggac tgatcgggta caactacctg   120
ggtgtccggg agtatccatc cgtagataac cctattattt cggtgtcctg ctcctatccg   180
ggtgcaaatg ccgatgtcat cgagaatcag atcaccgaac ccctggaaca gaacatcaat   240
ggtattccgg gcatccgctc actctccagt gtcagtcagc agggacaaag ccgtatcacg   300
gtagagtttg agctttccgt cgacctggaa acagctgcca atgacgtgcg tgacaaggta   360
tcacgcgccc aacgttatct cccgcgcgac tgcgaccctc ctaccgtatc gaaagccgac   420
gccgatgcca cccctatcct tatggtggct ttgcaaagcg acaaacgttc tttgctggaa   480
ctcagtgaaa ttgccgacct gactgtaaaa gaacagttgc aaacgatctc tgacgtaagt   540
agtgtctcca tttggggaga gaaacgatac tccatgcgtt tatggctcga ccccatcaag   600
atgtccggtt acgggatcac tcccatcgat gtgaagaatg cggtagacaa agagaacgtg   660
gaactccctt caggtagtat cgaaggaaat ccaccagaac tttccatccg tacttgggat   720
taa                                                                 723
```

<210> 3178
<211> 1989
<212> DNA
<213> B.fragilis

<400> 3178

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cctactgaaa ctgatatgaa aaaatcacga tgtataaagt cttatatatg ggtagcattc    60
cttttaaata ctcttatctt gttcggttgt atacaaccga acaacagcag atacccagat   120
aagattcacg aagttctcaa gttatctcat aacaacagaa aagagataga gaaagctctg   180
gattttttca ttaatcagaa agactctttg aagatcagat ccatattctt tttggttggg   240
aatatggcag ataaatacag cctcactcca gccaatgaac aagatccttt tcattctatt   300
atcttaaata accacattaa agaaaaagaa gcgtgggatc ccggcaagtc ccggttagga   360
atggcattgg attccgtata taaaacatgt actgaccctc cacgccccaa aatagtaaga   420
gacatcgaag ttataaccgg caacttcctg atcaacaatg tagaagaagc gatcaagatc   480
tggcatcgta ctaaaaagtt tacggagtgc tctttcgatg atttctgtga atacatttta   540
ccctatcgta ttggcaacga atcactgagt gcttggaggg aacaggcttg tcaaaaattt   600
tcttacctgt tggattcaat cagcgatcct ctggaattga caaaagcaat agtgcaggta   660
```

```
tccggcattt actataacgc cggaatgagt aaataccctt ttttcccgac tttcagtgaa    720
ttagatcagt tacattgggg aagttgtgac cacttggccg catatctgac cttttcactc    780
agggccatcg gcattccttc taccatcgat gtggtacccg catgggcaaa caggggcggc    840
gggcatgcgt ggaacgtggt gatgaacaaa gacggaaagt ttgtggatgt cggatttaac    900
ggagagggac acaacagcat ctcgtataag attcctaaaa tatacagaac cggatattca    960
agcaataagg gcggtattgg ttacttagat cctctttgga aagacgttac gggagaatac   1020
ccgatgccta tatcagatat tgccttatcc ggatcggatt ccgacatgaa aggtgacgtg   1080
ctgctcttat gtatatttaa taataaagat tggatacctg tagccgtttc cgcaactgag   1140
aataaaaaga cgatgacttt cggaaacgta gcgcggggaa tcccgttcgg cgacaacaag   1200
atcgccggat atcaaaatga aggtaagggc atcgtttatc ttccggcatc cgtgcgaaac   1260
ggcgtaatgg ttccttttgc aacacctttt attttaaaag agaatggaga tgtacataag   1320
ttgactcccg atcattccgc cctccggagc atttctttat atcgcaaata ccctaaatac   1380
gggcatatct cagtttatgc cgcaagaatg gcagacggat gttttgaaat atccaaccag   1440
accgacttcc cgactcccaa aagaatctat acaatcaaag aacctcccaa gcacgccatg   1500
gcagaagtca acttacacgc tcctgccacc tgccgttata tccgatataa ggcaccggac   1560
caatcttggg taaacatcag tgaactacaa tgctattcgc ccgaaggaaa actgtccgga   1620
acaccttttg cctcagataa aaacaagtct ccggaagagc tcgccaaaat atgtgacggg   1680
aatattgaca ctttctatgc cggtgaagtc cgtaacgctt atgtaggaat agatttcggg   1740
aaagaggttg aaattgaccg aatcatatat tctccgcgaa cagacgggaa tgatgttatc   1800
ccgggagaag aatacgaact gttttattgg gaaaaccggt gggtttcttt gggacgcaaa   1860
aaagcggaca gcttccgtct gcagtatgac agtgtgccgg acaatagcct tttatggctg   1920
cataaccgga caaaaggagt tgaagaacgc attttctactt atatgaataa cgaacagata   1980
tggtggtga                                                           1989
```

<210> 3179
<211> 2796
<212> DNA
<213> B.fragilis

<400> 3179

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atggataaga ctttattaaa actggaaatc ggcaagtgga acgaagcttg tcgatttctt     60
aaaagcaaac aaacagaact ctctacagca gaatggactg ctatagagac actggccgac    120
tattggcgaa aaaaatttga tccggatgct accagcgaat gcatggacct gataagcact    180
cttgaacaat cggataaatt acacagcaat aataaagaaa ttattgtatg gagtaaagag    240
tttcgtacca tcgccaggaa gtattacact aaagacgaaa ctacattttt agtattccaa    300
aatgcgttaa aggaattata tcagagttct gcaccccgct cttcggctcc tcttcagaca    360
cctgtcaaca gtgaatctca aaatatcata ttaaacaaa atgcaaaaaa atgggtaagc    420
acttattcgc agttatacga gaatcagaat gaactggacc gagatgaatg gaatgctgtc    480
cgtttcttag ccaatttctg gaaaaacggt acatttaacg aaacgtcccg aaaagaatgt    540
gagcagtata tctccattct aatcgcatca gacaaattgc atagcaataa caaaaacatc    600
attacctgga gcaaagattt tcgtggaata gccaaaacat attatacaaa agattctaaa    660
acttttgagg gcttcaaaaa gttcatgacg aaatatactc gcgaaaaccc gatacaagaa    720
aggacccctc aggaaagaat accacaaact cctccccggc aaacatcccc ttccattgaa    780
ataaccggat tggtaattgc caatactgac gaaaaaggtg atcccattcc ttcgaatcag    840
gccgagctcg atactcgtag ctgctatta cagcctcgaa ttgattatcg agtattaaga    900
ggagggagca gtgtagatat atggtacaaa ttatacgctc ccgacaggac actcatgaca    960
gccagcaaca gcaagtccgg ttatacgtgg tatggtaatg tccctctcac aggttcccga   1020
tctgcatatc ccttgaatgg cttcggaagt atgtctggaa atgtattctc cgctggccaa   1080
tggattattg aattctttga gaatgatctg caaattgcaa cgtacacatt cactatcaaa   1140
caacaccgga cctctactcc cccccacaa tcacgggtaa cgccgccacc tcctccaaga   1200
actccatcta accgacgaac atctacagtt cgcctaaaa aggggcacgg aggtttgtgg   1260
tcgttcttga ttatcgccgc tattataggc ttttgcggct atcaatattg gtataaacct   1320
atgaccattg atcgggatgc agagcgtacc tatgtatacg tatccagctt gttgcaacgt   1380
tccgataaaa atgcaaatgt agaatataat cgtatccaat ctctgcccta tggttcggag   1440
ctcatcactt accaaaaaga aggagatgga tggtcataca ttagagctaa tgagaaaaag   1500
ggatatgtat ctaccaatta taccctaagt aaaactgatt ttgaattgtt gaataactta   1560
tggggaagca aagaagctat ggaaggagca ccgacagcaa aatgtcggct ggcactcgta   1620
gactttataa agaaaaacaa ctataaaaca gggacggggc aatggcagtt gtttgcacaa   1680
cctatagaag tcaaacctaa tgcagtactt taccctcgac tggctaacgg atatacgaag   1740
```

```
tttacagaat ttgcatttgt cttatccaac agctccacac atgaaggtgt attggctatt      1800
tattcgtttg cagatgacga aactcccgtt tttatatatc aagagcaaac aacagaaaat      1860
gccaaaataa aagatgttag atattatcca tggaaaacag ataaatataa agttatctat      1920
gctaccccaa atgctatggt tagccgctcg cctcaactcc caaccaacca gcaaccgtca      1980
aaagcaaaga gtgagaacgg actaaaaata acgaaggcac tttttggaaa tactgataaa      2040
agttacaata ttcttactca atttgggaca cagctcccca ccaccactca gtacttgtct      2100
ccacgtattt tctatgaaaa tcctgcgggg aagagttcag tggtcatcaa atataaaatt      2160
atcactccac aggggaactt aatgactgga acaggatcac cctccggata tactaatgaa      2220
caaaaagtaa ctctaaacag atccggatat attaatttag ccggttgggg aaatacaacc      2280
ggagatgcgt acacttctgg aacttaccga atagaattct ggtccgaagg agaattattg      2340
tattcaaccg gagtgcaaat tcagggcaat tcagaaaagg ctgtaactgt ttcttcaaac      2400
ccagttgagt gtcccatcaa aatccgaaca atgttatttg ccaactcaaa cgataaaggg      2460
actattttag aagattatgg gaagccgctt tacggaaata aattacaata cctgaaacca      2520
aagattattt attcaagtct aaacggggcc agaaatatta cattgtatgc caaaatctat      2580
cgtcccaatg gtgtactcat tgccaacaag aactcgccga acggatacac ttacaaacat      2640
ggtatgtata cacctgctgt cggagctgat aacaatgttt cttatttaac aagctgggga      2700
agtccagagt gtgacgtgta ttctccaggt acttatcagt acgagatatg gtacgaggga      2760
agtaaaatct tctcctgcca agtaattgta cactaa                                2796
```

<210> 3180
<211> 1326
<212> DNA
<213> B.fragilis

<400> 3180

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ggtacggctg cggtatgcca ttgcctccgt tgtaattccc attctgtctg tttgggctat      60
tacgaaactc tttactctgc tataatggaa gttctatacg agatttatct ttcaatcagg      120
caaaataaga tccgcacctt tctttccgga ttcggcatct cgtggggaat cctgatattg      180
gttgtactat tgggtacagg aaaaggattt caaaactctg tgatggatat attcagcatc      240
ttcgcccaga aaagcatgta tgtatatgga ggagccactt ctatgaagta taagaatatc      300
agagaagggg aacaattgca tttcgatttg catttttta accgcataaa gaaacagttc      360
ccggggataa aagctatttc gcctgaaata acaggacctt attcgcaagt gatgaataaa      420
gctaaaagcg gactttttaa gattatagga atcaatgaaa actatatggg aattaagata      480
cttaaaatca acgaagatgg acgatatttt aataaggag atgacgagaa tacccgtaat       540
gttaccatta tcggcgaaaa tgtcagtacg accttattta ataatcaaaa agcgttgggt      600
aagtcgatca acattgccgg tattgatttt aaggtgatag gcgtactaaa gaatgatgat      660
attttcagcg cttcggaaat caattcggta tatgtgccct tctcaagtta cataaactgt      720
attgacaata agactccatt gcgcgctttc tgtttatatc tgaacaaaga agttgattcc      780
aagcgatttg agaatgagct gagagccttc atcgctaata aataccaatt tgcttatcct      840
gataagcaag ccttacagat aatcaatttt gagacacaaa catctgcttt tgagggactc      900
tttgatggat tgaaaatgtt tatctggatc gtaggaattt gttttctgat aagtggtatt      960
gttggagtaa gcaacatcat gtttgtcgtg atcaaagaaa ggagtagcga aataggcatc      1020
cgtaaggctg taggagcaac tcctaaatcc attcttgtgt taatgctgac ggaatctgtc      1080
atcataactg taatctctgg tatcatcgga ttgatatcag gtgcaggtat tcttgagatt      1140
ataaattggt tgctcgaaag cgcccgtcac gcgacaatga taaagcatgt agaaatagat      1200
ataaatgtag ctgttctcgc tttggttatc ttgattctgt ccggtgtcat tgccggagca      1260
tttccggcaa tgaaagcatc tgttatacaa cccattgacg ccattagaaa cgaaaatata      1320
ggataa                                                                 1326
```

<210> 3181
<211> 738
<212> DNA
<213> B.fragilis

<400> 3181

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tcagaaatgg cagaatcgac tatcatcaca ggacaattcg tacgaatcag tcaggtaccc      60
gccagccttg gcgaacggat actggctcgt attattgact attttctgct gtttatctac      120
attcttgcca cttcttatat attggggaaa ctcaatatac atgctttttc cggaagtacg      180
tttttcctgt tgttcctgtt catctatctg cctgtactat gttactcgtt actttgcgaa      240
```

```
gtttttaacc aaggacagag tgccggaaag aaacttatga atatccgtgt ggtaaaagca    300
gacggtacga cacccagcct gagcgcctat ctgctaaggt ggttgctcta tgggatagac    360
gtaactatta ccggaggatt gggcgtactg gtcatactat tgaccaaaaa cagccaacgt    420
ttgggagatc tggctgccgg tacaatggta attaaagaaa agaactatcg caaaatacag    480
gtaagtcttg acgagttcga ttatctgact aaaggatatc atcccagttt tccatcagct    540
gccgacctgt ctttggaaca aataaacgta atcagtaaag cattagaatt acatcataag    600
gatcggacaa gacatatcgc acaattggca cccaaagttc gtgccctgct atctgtagat    660
caaacaaata taaacgatga aaaatttctt cagaccgttg taagagacta ccaatactat    720
gcattagaag aaatttag                                                  738
```

<210> 3182
<211> 1809
<212> DNA
<213> B.fragilis

<400> 3182
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aacaaaccgg caatgaaaaa taaagtctta aaaataacgg ctgcgctatt attcctattg    60
ccacatgcag gcctggataa taacagattt ccggtaatgc tcttttgtt ctatatatgc    120
tcttttgtct ttttcgcaac gacatggagc ggaatgaaag aagattggag cagaaacagc    180
cgcacttgtt ttattgtctc cggcattgtc ctgagccttt ttttacggta tgtctcagga    240
aatatatatg gaacctatcg tttatatacg atggcggtac tatggatatt gttcttctct    300
ttttatgccg cacagtccct gcccgggaaa aacagacgct tccttgcctg ggtagtcata    360
gcgactgtcg cagtggaaac cgttttggga atcgcccagt ccatcggtct actggagaat    420
agcgacccac agttcatcat aggcgggtct atgaccaacc cgggagccta tgccggttat    480
cttggggtga ccaccccgtt gattctttca ctattagtat cttataaaaa aaacaaacgg    540
ttcgagaata tttgctacat cttgggcggg cttttttatct tagtatgcta tctgttaata    600
ctcagtcgct cacgcggagc atggatcgca tgtggcgcag gctgtctttg tgtactttgc    660
tatcggtatg cccgatttct acgcggtacc aactattgga gtaaaaaagc gattcggact    720
ccgacaatca ttctgtcagc cgttttaatc atcgcaagcg gattctttgt attcaaaatg    780
aaagaagatt ccgctttggg ccgtatattg gtatggaaag taaccctatc cactcctcat    840
ccccatgcga gcttgttatg gggaaacgga atcggttatt ttgaatctca atatggaaag    900
tggcaagccg actacttccg ggaaaaagaa ggtaccgaga agaacgtca catcgcagga    960
tatgtaacca ccgcatacaa cgaattcctt gaacttggcc ttgagcaagg gattatcgtg   1020
acagcatgca tcgcggccct tttggttatg gcaacgggca ccggttggaa aaacctatca   1080
accattgaac tcggagccaa agcatccatc gtttccataa ccatattgat gttctgttcc   1140
tatcctctga aggtactccc caccactctt tatctgatgt tctgcctgtc ggtggctctt   1200
tatggaaaaa agcggttgct ttccaccgga catcgcatga taagcaacgg tgtaagatcc   1260
cttgctggtc ccctgatctg cgtattcgca cttccggta tgataaatgc atacggatac   1320
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atgtataaaa aggcgcaagg cattctcagg aaagacggca tcttccattt ttatcttgga   1440
tcagcctatt ttttatcggc tgaatatcaa aaagcgattg aagagctgtc agtttcctgc   1500
acccaatgtt ccaaccctag cagtttcatc ctcttaggaa acgcataccg ggaaaacgga   1560
gatacggcta aagccatcga tgcatataca acagctgtct atatacagcc atccaagtta   1620
taccccaagt atttgttggc taagctatac gaagctgcag gcgattacgg gagtgctgga   1680
gaatgggctt ctaaaatatt agctaccgac gagaaagtac caactacagc ggcaaaagag   1740
ataaaagaag agatgaggtt actgttgaaa caagtagtaa taaaaacaaa aaaagatgat   1800
tataaataa                                                           1809
```

<210> 3183
<211> 711
<212> DNA
<213> B.fragilis

<400> 3183
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agtatggagg caaaagttaa aattctttt attgatgatg atattacgtt tggacgtatt    60
tgtaccatca tcttacagga aaaaggctac gaagtttttt atcaaaccac tttaaacgga    120
gccaaagctt gtatagcgga agctcatccg gatatcattg tacttgatgt ggagatcgga    180
aatcagaatg gcattgaagt cgctccagaa ataacagtga tagcaccgaa tgttcctgtt    240
ctgtttatct cttctcatac ggagagccat tgggttgtac aggctttgga agcgggtgcg    300
```

```
  gtggcttatc ttaaaaagcc ctttcatgct gaagaattaa ttgcgtatgt tgaaaggttt    360
; gctgtacagc gtccatccca actccggata ggttccttgt cgcttgacac cgaaaccagg    420
  atcttatttg ctgatgactc gacagttatt aagcatttga gtgaatccga atataagtta    480
  gtaaggcttt tacttattca taaaaaccac atagtgggca gagggcaaat agaaatggag    540
  ctatggggaa atactgaagg aaatgaacag agtactaata atttaatatt caagatacga    600
  aaataccttg ttgccgatcc cgacatcgca cttgaaacga taccgaggag cggatatagg    660
  ctttctgtga aattagaaaa acagaaaaga agagtgagtg actgttttta a            711
```

```
<210> 3184
<211> 756
<212> DNA
<213> B.fragilis
```

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<400> 3184
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tcgttcctaa ttgtcatact tgcatatccc ttaattagtc ttttaacggt attaattatt    120
ggaaacttag tgcaaaatac aactccatgg atacgcccca tgacgctatt cagtctcgct    180
acatttatct taatattcag aaaaaatatt cgatgtcatt cgtctttcaa taggagtctt    240
tctttgaaaa caattctttc tgtttgcatt ttaactatat ccatgtgtat agctataggg    300
atgattaccc caattcctca aaacatatca ttggcgaaac aagaactact caattttccg    360
agattcatat atagtctatt cttaatccct attttagaag aattatgctt tagaatcatt    420
attatcaata aattcaaagg taaaatgaat caatggatta taatcacggg aacagcacta    480
ctctttggta taatacatac gagtagtatc tatacaatga tttcaatggc atgctttggg    540
tttatattag cctatttgta cgttaaatca gaaaatggtt tccttcttat actggttcat    600
tctttgtaca gtattagcgt ctactgttca tacagtgttt tttggtccat tacatcaaga    660
gttttaaatt atgtatatag tcctatatat tacattatag ttgctatttc aatcatgtat    720
attatttatt tttttcttaa aaagaaatac gtttaa                              756
```

```
<210> 3185
<211> 1098
<212> DNA
<213> B.fragilis
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<400> 3185
aaacgaaaat ataggataat gaagacattt aagattatat taatttgcat cttttccgcc    60
acactggcat ttgttgcttt tcgttcttcg ctaagaggta caaaggcaat ttacgaaact    120
acacaaccac aatatcgcga gatcaaagag gaaataaaca tatccggcaa tgttttttccg    180
atgaaggaga tcgaaataaa atcgcagata tcgggagtcc tggacaagat taatgtttcg    240
ataggagata aagtgcgcat aggagatcct gtcgcctcca tcatgctggt cccaaacgca    300
tcggatatgg aacgactgga atataacttg aacactgccc aaattgagta taaagcccga    360
ctggaagatt ataaacgaga acacaaattg tactcaaaaa accttgtggc acaggcagag    420
atggactctt acacacaggc atacgaatta tctaaggaga agctcgcctc tgcccaaaat    480
caattgaaca tcttgaaaga agggcgtatc tctcctgaaa cggcatctaa catcgtaagg    540
tcgagtatta gcggcgttat tattgatacc cctctggaaa cgggggcctc tgtaatagaa    600
cgcaataatt ttaatccggg aacaacgatt gccgttgtgg cggaaatgtc tcggtttcgt    660
tttaaagccc ttgtccctga aaaatatctg aaagatatcg ctttacaaga cacgatctca    720
ctcttattca atgcctatga taatttacga acccgggcag tagtaacaaa aatttcatcc    780
aaaggaaatg cagagaacgg aattatgaaa tatatgcttg aggcagaatt tcccgtctcg    840
gaaaatatgc ctgttataag atcgggatat tctgcaacgg ccaatatggt gataaaacag    900
aaaaagcaca ctttatccat tgatgaaaaa tatgtcttat acgagaatga ctctacatac    960
ctctatctgc tggatactgt gacacaacag aaaacaaaac aaatcatcaa catcggtatt    1020
tcagatggaa attatgtgga agtgataaag gggatttcat taaaggataa aatagtaact    1080
aactcaaccg ataaataa                                                  1098
```

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<210> 3186
<211> 1062
<212> DNA
<213> B.fragilis
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<400> 3186
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tgggcatcat  tctattgtca  ctgtcattta  ttatctatta  ctatatttat  ttaccaaaca     120
gaaaaactca  tggaatcaca  aaaacctaaa  attgctttat  atgtgaagcg  tccttttggt     180
gataaactga  atgcgaccat  ggactttata  aaagagaact  ggaaaccgat  gttgaagttc     240
tgtacctatt  tgattctgcc  gttatgtctg  attcaagcca  tcagcatgaa  tggaattatg     300
ggaggagcaa  tgggaattgc  agctgccaaa  gaggccggga  ccaattcttt  agcggccatc     360
ggaatgcaat  tctgggtaaa  ttacggactg  atgtttctct  gctatctggt  aggttctata     420
ttgctgactt  ctattattta  cggactgatg  caggtttata  atcagcgcga  agaacggttg     480
gccggtgtga  cgtttgccga  cttgaaacct  tttctgttca  agaatataag  acggctgctg     540
gttatggtac  tgttctgtat  aggccttact  atagtggtgg  gcattgttat  ggggattctg     600
gttgtagctt  ctccgttcac  gcttttgctt  actattccgt  tgctgatagc  ctgtgcagtg     660
ccgttagcct  tgtttactcc  gatttacttg  ttcgaggaga  tcggcatcct  tgcagctttc     720
tggaaaactt  tccgtctggg  atttgccaca  tggggcggtg  tcttttttagt  atctctggtc    780
atgggtttga  tatccagtgt  attgcaggga  gttactacga  ctccgtggta  tattgccact     840
atcgtaaaat  acttctttat  gctgagcgat  acacagaatg  aactgaccat  ctctgccgga     900
tatagtttca  tggtctacct  gttggctatc  gtccagactt  ttggtgccta  tctttctatg     960
atattttctt  tgattggtat  ggtatatcaa  tacggtcatg  ccagtgaggt  ggtagatagc    1020
atttcggtag  aaagcgagat  agataaattt  gagcaattat  ga                        1062


<210> 3187
<211> 291
<212> DNA
<213> B.fragilis


<400> 3187
cccatgtttc  acattttagg  attttttattc  attattgtca  tagccgttat  aatcattgga     60
ttggcccttg  taggcagcgt  attaagagcc  gttttcggac  ttggaaaacg  ctcgccctcg     120
tcaggttcag  atcgtaacgg  acccaataat  aattcaggaa  gcagaagata  ttaccaccaa     180
actcaggcta  atgataaaga  agaaatcatc  actgggacag  gagccaagca  caaaaaactg     240
tttgatgata  acgaaggaga  atacgtagac  tacgaagaaa  taaaagaata  g               291


<210> 3188
<211> 729
<212> DNA
<213> B.fragilis


<400> 3188
accaacaatc  agaatcgtat  ggcaaaatac  aaaagagtcc  tgttgaagct  cagcggtgag      60
agcctgatgg  gagaaaagca  atacggcatc  gatgaaaagc  gattggccga  atatgccgca     120
caaatcaaag  agattcatga  acaaggcgta  caaatcggca  tcgttatcgg  tggtggtaac     180
atcttccgtg  gactgagtgg  agccaataaa  ggtttcgatc  gggtaaaagg  tgaccaaatg     240
ggtatgctgg  ccacagtaat  taacagcctt  gccttaagtt  cggcattagt  tgcggccggt     300
gtgaaagcac  gtgtacttac  agccgtacgc  atggaaccta  tcggtgaatt  ctacagtaaa     360
tggaaagcta  ttgaatgcat  ggaaaatggc  gaaatcgtca  tcatgtcggc  aggaaccggg     420
aatccgttct  ttactaccga  caccggctca  tcgcttcgcg  gtatcgagat  agaagcagac     480
gtcatgttga  aaggtactcg  cgtagacggt  atctatactg  ccgacccgga  gaaagatcct     540
acggcaacca  agttccacga  catcacttac  gatgaagtgc  tgaaacgagg  actgaaagtg     600
atggacttga  cagctacttg  tatgtgtaag  gagaataatc  tgccgatcgt  agtattcgat     660
atggatacag  taggcaaacct  gaaaaaagtg  attaccggag  aagaaatcgg  tacattggta     720
cacaattaa                                                                  729


<210> 3189
<211> 1410
<212> DNA
<213> B.fragilis


<400> 3189
accgccggtc  agccaaaggt  cgttctcctt  attcttgcgc  tcgccggaaa  tggactgggt      60
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agccaccata ttcgtccaac tgccctgacc ggaaaagttt ccgtccggat gatataccgg    120
catcatcggg cgaaggtcgg caccgtagaa tgcactgttg atctgtgctg tctcgtcact    180
gttgttactt ccgtaaggag catcccggta agtgttgttg tagacggtct tcaaccgcac    240
ctgcaaccaa ttggtgacgt ccgaagtcag gttcaggttg acattgaaac ggcggtactt    300
atcgtcgtaa tgtttcagtg ttcccccttg gtcgaggaaa cctatcgaac cgtaataggc    360
ggtcttgccc gaacctccgt tgagagacag ggtgtactgc tgcatcaggg tgttgtcttt    420
gatggtttca tctatccagt cggtgttgcc gcaatacaga tacttgttgg gattggacgg    480
atcgatgaat accggcagat tgtgtttcgg gtcggtataa taggcataga tatgatccat    540
atagttctta tcgtagtaat cgcctccacc cgagttgcgg ttggtcagat tatggaaatt    600
ggcaaatgtc cacgaatcca tatactccgg tttgcgtgta ggcgaattga tagaccagtt    660
ggacgagaac gagatcttgg ctttctcgtc tttacctttc ttggtggtaa tcagcacgac    720
accataggct gcctgtgttc cgtaaataga agccgaagcc gcatccttca atacagatac    780
gctttccaca tcggccggat tgatcatgtt gggatccatc tgcacaccat cgaccagtac    840
caaaggtccg gaagagttta tagatgtagt accacgaacg ttgaacccgt atcctttgcc    900
cggcgcaccg ttgtcggcgg aaatgttcag gttaccgatc ggaggctgca gtccctggct    960
aagattggtg atcgggcgac tctccaatgt ctctgccgaa acactggcta cggctccggt   1020
gaggttggct ttcttttgtg taccataacc caccaccacg acttcgtcca aggttttgct   1080
gtcctctttc agggtgatct gcagacgggt ctttgcggaa acggtcacga cttgtgtttc   1140
cattccaata aaggagatct caagttgctc tccctgttcc gcttcaaccg agaagttacc   1200
atccatatcg gtgattgctc cacgtccggg agcacccttt accaatacag aagccccggg   1260
aagcggagaa cccgtaacgt caagaacaca accggttatt ttctgtttct gctgttctac   1320
ctgcaccact ccggcaggtg ctgcattgta gctgtgagaa gcaaggcaag gttgaagtcc   1380
cataccgaa agaaggacaa acatccctga                                     1410
```

<210> 3190
<211> 624
<212> DNA
<213> B.fragilis

<400> 3190
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atgacgttgc aagctgatac attggtctgc gataccgcaa gggttgcttt ttggcaatcc     60
aatccggatt atgactataa ccgtgaactg atgactcctg agattgatat ctacgggtgg    120
ctcagtatgc agctctccaa gttacttcgt gccattttcg gaagtcgttt tgctgaggag    180
tattccggca ttatcctgat tattattgct attctcatcc tgttgctgat cctctggttt    240
ctttataaaa agcgtcccga gctttttatg cgttcacgca gaggtcctgt aaactatagt    300
gtccacgaag ataccattta cggagtcgat tttgatgcag agatcaggcg tgccatagac    360
cgcaaggatt accgggaggc catccgtctg ctttatttgc agacccttaa actgttgagc    420
gatgacggcc ggatagattg caactttat aagactccta cagaatatat ttatgaggta    480
aagcaggaga tacttcgtac tcctttcagg aatctgaccc atggtttctt acgggtacgt    540
tatggtaatt ttcccgcttc cgagtctctt tttgaagagc tggcagctct gcaaactcaa    600
atcaggaagg gaggggatgt atga                                           624
```

<210> 3191
<211> 258
<212> DNA
<213> B.fragilis

<400> 3191
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cttctttttcc tgaaagaagt taatgttttg atgataaaac cggaatattt atccgagaag     60
ataagaaaat cgcatacaa ataccctatt tatgtatttc actcctctat taggacgatt    120
tcgaaaaaag accgcgttat taaaagagag ataaaaatat cttttttcatg caaaaacgca    180
aataaacaaa tctatttgca caactatttc tctctgcgta ctcgtgataa gatttatcca    240
tataaccaaa agacatag                                                  258
```

<210> 3192
<211> 498
<212> DNA
<213> B.fragilis

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<400> 3192
ttgtacacta agcataatac aatgaaaaag aaaattatac ggtatctaat tgtatcgcat      60
ctaacattta tcctttctat aggcggtatg gcagtagctt tctactacta ccatactgcc     120
caaatggcac aaaattaagaa tgcgaacatt cttctcatct caaaagatga aatgaaatta     180
cgcttaatag actataaggg ccaagaatta ttcactgccg acatagcttg tgggaagaat     240
tatggcaaca aggaaaaaca aggagattta aaaactcctg aaggaacttt taaaataatc     300
gatatccaag atgcttctaa atggaaacac gattttggag atgggaaagg tgaaatagag     360
ggtgcatacg gtaatcattt catccggtta gaaacacccg gacataaagg gaattgggat     420
tcatggcacc cacgacccat tatctattgg gacccggagc gacccgagga tgcattcgaa     480
tcaaaaattc agaattag                                                   498


<210> 3193
<211> 573
<212> DNA
<213> B.fragilis


<400> 3193
atacttaata agatggtaga cgtaaaaacg attatcgaag aatcacaaga gaagatggat      60
atggcagtga tgtatctgga agaagcactg gcacacatcc gcgccggaaa agcaagcaca     120
cgcttgctgg atggtatccg tgtagactct tacggaagca tggtacccat cagcaacgta     180
gctgccgtaa ccactcccga tgcacgcagc atcacgatta aaccttggga taaaagcatg     240
ttccgggtta ttgaaaaagc cattatcgac tccgatctcg gcattatgcc ggagaataac     300
ggtgaaatta tccgcatcgg tattccacct cttaccgagg aacgccgtaa gcaactcgcc     360
aaacaatgta aagctgaggg tgaaacagcc aaagtcagta tccgtaacgc acggcgcgac     420
ggcatcgatg cactgaagaa agctgtaaaa gacggtttgg ctgaagatga acaaaagaac     480
gcagaagcta aactgcagaa ggttcatgac aaatacattg ccaaaattga agaaatgctg     540
gctgaaaagg acaaagaaat tatgaccgta taa                                  573


<210> 3194
<211> 1302
<212> DNA
<213> B.fragilis


<400> 3194
caaaataata attttattat tactgaaaac caagaaacct tactaattat gaaaatactt      60
ttttccctag acgtctccaa ccagcgacaa gttgactttt gtaatagaat actaaagatt     120
ctggataata aagatgatag caatgatatc acccttatat gtaaatctca aaatcatctc     180
agtgattatc tatatatccc cccgtcaagt catataaaaa cagaagaagc agagattatt     240
cttacttatg gcaaacagg tttgagccac attagtcaat ttgcaagaaa atcaaatatc     300
ccaatcatac acttcataaa tacagagtat ttaaaagacg aatatttaag tgaagaccaa     360
caagtagaaa aaataatact ttgtgattgc ttcaatcagc tcttggagag tttctttcaa     420
aaagacaaaa tgtttgtctt accatatttt tctataccag tcgttactaa aaatgtagaa     480
ataagaaata aaaatagccc caaactatta atagctatcg cacaccctaa ccttaaaaat     540
tcaccggtct attatatcag taacttatta aatattttat cagactatag aatcacaata     600
ctttataatg gagatcctct tatccctata ttcaattcta atattacact tatcaatgta     660
aaagaatcga atatcgaaaa agtaattcta tcaaatgata taatcatcgg ggatggtatt     720
tctatttaca caggaataat gttaggtaaa ccatgtatcg tgattggaga gcaaggatat     780
ggaggactta tcacaccca aaacctcagc caacaattcg ctaataagtt tcagggacgg     840
atagggggaa gcttaaacga atacatccct ttgaatttga tcatgaacga tattcaatat     900
gtacaaaata cagaaaagag caaaaacata gactgcatta ttattaaaaa caaaaaattg     960
ttggacaatg agtatcgcca aacccagcaa tcgcttaacg acttaatttt agaagtagca    1020
gccaaccaca aacaattata tacgttccct atggaaattc accttaggtt atcggatgct    1080
tttcacctta ttaaattttc tgataccaaa tttgtattag cttatacagc caacaacaaa    1140
gtccattcaa gttttggtaa agaagaagct gaaattatag ccctttttaa aagaagttgc    1200
ttaataaaag atgctataaa tatgagtcca tacaaaaagg aacctaaaat atttgtggag    1260
tttatccaaa tgctgtttaa tgaaaaaata ctgatagcat ga                       1302


<210> 3195
<211> 1086
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<212> DNA
<213> B.fragilis

<400> 3195
gacatggata aaaaggtaaa atggggcatc gtcatcttgg ttggtgccgg actgataggt   60
tggggaattt actcccgact tcctaaagca aatgaagagt tggcagcagc cgacaaagtg   120
atgacaggca aacagatcaa taaaagggtt ctgaacgtaa acgccaaaat cataaaacca   180
caattgctga cagaccagat tcaaatcagc ggtagcttga tgcctgacga ggaggtggat   240
ctttcttttg agacttcggg aaaaattgtt gagatcaact ttgacgaagg aacaaccgta   300
aagaaaggac aactactggc aaaagtgaac gaccggcaat tacaggccca gttgcaacgt   360
cttgtagctc aactaaaact tgccgaagac cgtgtgttcc gccaaaatgc tttgctcgaa   420
cgggatgccg tcagtaagga agcttacgag caggtaaaaa cggaactggc caccctgaat   480
gcagatattg atttggtaaa agcgaatatt gccatgaccg aacttcgcgc acccttcgac   540
ggggtgatcg gactccggca ggtcagcgtt ggctcttatg cttcacctac taccatcgta   600
gccaaactga caaaaatcat tcctctgaaa atagagtttt ccgtacccga gcgttatgcc   660
agtcaggtaa aaaagggaac taacctcaac ttcgaactgg aaggaaagtt aagctctttc   720
cccgcaaagg tatatgccac cgaatcacga atcgatcagt ctactcgtac actgaccgtt   780
cgtgcactgt atgctaacag taacggggca atactaccgg gacgttacgc cagcatccaa   840
ctgaaaaaag aagaaatccc gaatgccatc gccatcccat cggagtccat cgtacctgag   900
atgggtaagg ataaagtatt cctctataaa tcgggtaaag ccgaaccggt agaaataacc   960
gcaggtatcc gtaccgaagc tgaagtacaa gtcataaagg gcctacaaat gggtgatacc 1020
atcatcactt cgggaacccct gcaacttcgt acaggtctgc ctgtcacact ggataatatc 1080
aattaa   1086

<210> 3196
<211> 204
<212> DNA
<213> B.fragilis

<400> 3196
tttattacca agattttttg cattaagata gaggctatta ttgataataa tataagaatg   60
gcagataacg gaaaatactg tattggaatt acatatattg atagaatgat agaaatagga   120
ctcagtatat ttaatagtat cttattcctt ttagtcgtta aattgataat agatcctgat   180
aagttatttt tttgtaaaat ataa   204

<210> 3197
<211> 201
<212> DNA
<213> B.fragilis

<400> 3197
tgcagctgtt taccctcttt tcatatatta tggatggatt tgcctatgca ggcgaggcac   60
ttgccggtcg ttatatcggc gccggtaatc gtatggagct tcaccgtacc gtccgacagt   120
tattcggatg gggtgtcgga ttatcagccg ggttcaccct tctttacggt attggtggac   180
aatcatttct gggattactg a   201

<210> 3198
<211> 351
<212> DNA
<213> B.fragilis

<400> 3198
tattttaaca atatgaaaaa actgaatata aataaattga gtgaatatcc tgtagtgaat   60
atagaagagc agacttctct taaaggagga gttagccaag atgagttttt tagaatgtta   120
gagaataaca cttggcaagg tggttatgtt gatggttatg gttatgcagc cccggctgta   180
acaatctatg gaacttcttg gaacgaaacc gggagatggg atatagacgg atgcccggcc   240
tgcggtaacg gattaggata tgatcaaacc aagcctaagc cggaacatga tatcgtgacg   300
atttggactc atttcttttg ccataaacac atttattatg gaagcaaata a   351

<210> 3199
<211> 561
<212> DNA
<213> B.fragilis

<400> 3199

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atggttaaca aatatttttt cattgctgct tttttatttt ggttgttacc agccatagta      60
cgactgtgtg taatagatat ttctgaaata gcaataagtc atacgacaac ttttgaaatc     120
aatagtcccg ccaacaaaac cttatatttt ttgtataaca aagataaaca cagtgcattt     180
attaccattt taaaaaacaa tatgcaaggt tgcatcctaa atgtattagg aggagggtta     240
ttaggaatag gtacactttt taacttgtta ttaaatggtt tttgttttgc ggatgtatgt     300
tgccgaacat acaaactagg catgagtata accgatattt tcgctttaac cttgccccat     360
agctttgaac ttatcggttt ttggatatca ggaggaatag gactttatat agcttggaat     420
attattttgt ttatgtatac agataaaatg cctacattta aattttacaa aaacataggc     480
atcaatttat tgatcatttt cataattatt ctttcagctg cctacatcga aacttatgta     540
tcaataaata tgttaacatg a                                               561
```

<210> 3200
<211> 813
<212> DNA
<213> B.fragilis

<400> 3200

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aaatccagca agcatttgca ggtagaaatg acttatgttg ataacttttt gaagtttatc      60
tttgttagta gctgtagaca ttgtaatttt atggcttcaa attatcaacc tataactatg     120
caggatttcg ttcatttaca cgtccataca caatattctc ttctggatgg tcaggccagt     180
gtcagtgcat tggtcgataa ggctatgaaa gacgggatga aaggtattgc cgttacggac     240
catggaaaca tgtgcgccat aaagagtttt acgaactatg ttaataagaa aaatggaggt     300
ccgaaaggag aaataaagga cctgaagaag cggattgcag ctattgaagc cggtgaagtg     360
gagtgtgcgg ataaagatgc cgagattgct gactgtaaag ctaaaatagc ggatgcggaa     420
gggcgattgt tcaagcctat cataggctgt gagatgtatg tggctcgccg tacaatggat     480
aaaaggagg gaaagcctga ccagagcggg tatcacctga ttgtgctcgc caaaaacgag     540
aagggtatc ataacctgat aaaattggtt cgcgggcat ggaccaaagg ctactatatg     600
cgtccccgta cagaccggaa cgagttggag aaatatcacg aaggtttgat tatctgttct     660
gcgtgcttgg cggtgaagt gcccaaaaag ataactcagg gattgttggc ggaagcagaa     720
gaagccatcc aatggtataa gaacctgttt ggagacgatt attatctgga aatgcagcgc     780
cataaagcga cagggcctaa agccaaatca tga                                  813
```

<210> 3201
<211> 1257
<212> DNA
<213> B.fragilis

<400> 3201

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attgggataa agtggttgaa atatctaagg cctctttcct taacgtctgg aatctggcta      60
acgaaaagga ttattaagaa cgaaatgaaa actaaactaa ctaattgtgt aaaaaccgta     120
ttactttctt ttatgctggg agtgctgttt gcttgttgtc aggggcggc ctcttccggc     180
aatgcaggaa aaaatgcttc ccgggtgagg attgcttcca atgactctgc gaagctggtt     240
cctgataaag ccctgaatga tgcgtcttgc gtacttgcag gtttgccggt tgataaagca     300
agcggaaagc tttacgcact gactcggacc aaggaatgga gaaccatgc ccgttacatg     360
gatcagatat ggaatgtttt ccggcagacg gctccccggc tggtagcttt ctcacagacg     420
gaactggaag acatcaatac tcgttgccat actctgtttt atccttttgg cggtcctgac     480
tttttgtttg ccaatgcgtt cttccccgag atggacactt atgtactgat cgggttggaa     540
cctgccggca ctgctccgaa agtgaagcat ccttctgccg aaacttaccg gttgtatcag     600
aatgccgtat cgaacgtact caatctgagt ttctttaacg atatggataa ggaactggcc     660
aatgatacca tcgacggggt tgtccccatc tattcgttat tgatggcccg ggggaaccgt     720
aagatagtca gcattcagga agtgtggtta tcggaaaccg agatcttttt cgaaagaaaa     780
gaggggata ccatccggaa cacatgcagt gcagggatgg aagtccggtt tttccgtccg     840
ggcgcttccc gattgcagac cctctattat ttctgtacag atatcagtaa cgaggggttg     900
```

```
caagccaacc gaccgttaca ggcgtttatg gaccgttttg atgcggagac cacagcaaca      960
tttgtcaagt cggcttccta tctgatgcac gaacctgctt tttcgcgcat acgcgagacg     1020
attcttcaga aatcgtctgc tgttgtacaa gatgactctt ccattccgtt gtcctgtttt     1080
gatccggagg tgtggtcggt tactttgtac ggcaccttct acaagccgat ctccactttc     1140
tctcagtatc ttcagccgca attgcgcgat gcctatcaac tgggtgatcc gaaacccctt     1200
aatttcagga ttggctatgc acggcaatcc aatttgcagg tcgcaagaag aaaatag       1257
```

<210> 3202
<211> 663
<212> DNA
<213> B.fragilis

<400> 3202
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attttacaaa aacataggca tcaatttatt gatcattttc ataattattc tttcagctgc       60
ctacatcgaa acttatgtat caataaatat gttaacatga aaaggataat caatacactt      120
gagaagatgc ctaaatggta tggcttttta actatattac tatatagctt attactcgca      180
gaattttttga taactactaa tcatcttgtg aataataaca atttagagac tgacagatta      240
tttgtaattc tggcacggat gagttatatt ataatagtct tgtcagctat tgtaatatgg      300
cttatctcca cttttctctt tcacctaaca gccatactct ttaatggtta tgctccattc      360
aaacatcttt tatatatttc gtcttatttc tatattattc ctgccatttc tgttttatt       420
tccatcttcc ttcttaatca gaaaacggaa tatagtactt ctaatgcggt aacgaccttta     480
caaaataatt attctcttgg tctccccata atgttggtta actattcttt tatcccctat     540
tatttgctgt gcatgatatt aatccatcat ttatataagg tacggctgcg gtatgccatt      600
gcctccgttg taattcccat tctgtctgtt tgggctatta cgaaactctt tactctgcta      660
taa                                                                     663
```

<210> 3203
<211> 318
<212> DNA
<213> B.fragilis

<400> 3203
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cattctaaaa aactcatctt ggctaactcc tcctttaaga gaagtctgct cttctatatt       60
cactacagga tattcactca atttatttat attcagtttt ttcatattgt taaaatatta      120
gtaagacgtt ggttgtttct tgactttttc gtgaagcagt atttttttgct tttcgacctg     180
ttgggcggca tggtatgtca gggaaaccat ggcagatata aacataactt ttgtcttaat     240
ctgcattgca atgttctgtt tttattagca gtgtttacat gtttagttat tcttatttta     300
ttatttattt ccttatga                                                    318
```

<210> 3204
<211> 306
<212> DNA
<213> B.fragilis

<400> 3204
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atttcaaaaa aggtgaaaac aaataaaaag gcaatttttag gaatgttggt tgccatcgtt      60
atatctttag gtgtaatggg aggaatcaac gaaacaaat gtgattataa cttacaagaa      120
gcaactgttg caatgactta tgctgccgga actggtgaat atggtcctga agcatcagga     180
aagttagctg ttggagcatt agcaatggga aaagtaacag aaacattagg tacttgtgct     240
gttggtctag ctggtgtcc ggcaggttgg atagccggag taggagccgc agcagcagga     300
ttataa                                                                 306
```

<210> 3205
<211> 2223
<212> DNA
<213> B.fragilis

<400> 3205
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aaaaggaaaa accatctgca aatctcgaaa aagaaaatcc aaagaacaac tatgagaata       60
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aactttccat cttacattca acatgaccaa atggattgtg gaccagcctg tctgaagatt    120
atagcccaaa attatggcaa gagattttca ttgaaatatt tgagggatcg ctgttatgca    180
actcgcgaag gcgtatcatt gttcgacatt ggccgggcag cagaagagat tggtttccga    240
acactggcta tcaaagttac attcgaagat ttaatagaga agatgccatt gccattaatt    300
gtacactgga aacaaagtca tttcgtagta gtccataaaa tcacgaatag aaaagtttat    360
atatcagatc ctgcacaagg acttacccat tacaaccata aagaatttag ggaagcgtgg    420
gagatgtgca acggacttgg aaccatcatg atattagaaa cgactcccga atttcacaac    480
atgaacgaaa tggaaacccg agcctctttc agccatttta tgaaatatct gaaacctcat    540
caccgatatt taggacaagt tatagtaggt atggttgcag ggatattgat cgggctactt    600
tcccctttca tatcccaatc cattgtagat ttcggcattg ggtccggtaa tatccaattt    660
gtgaacacca tgctgatagc aggtatgatt ttggcattta gttcaatggc atctgacttt    720
atccaaagcc gccttatgct gtatgtgtca gagcggatta acatgggaat ggtcagtgat    780
ttcctccgca aaaccatgag tttacccatt acttttttttg agcgtaaaat ggttagcgac    840
ttactaaccc gaatagatga ccacggacgt atacagtcat ttatcatgtc cacttttctg    900
ggaatcttca tcaatatcct actctttgtc atttacagcc tgcttatgct ctattacgaa    960
agtaatatgt ttcttgtatt tatgatcggt aacacagttt ataccggatg gatatttctt    1020
tttctaaagc aacgaaagaa actagataat caactattcg gatgcagggc cactaatcag    1080
aacgatctat tggaattatt agaaaatgtg aacgaaataa agataaataa tatcgcgaac    1140
aaacgaagat ggaaatggga actcagccgc tttaaaattt atggtttgcg ggtaaaaaac    1200
atgaatctcg accagataga agcgaccgga gcctctttta tcatccattt acaagggctt    1260
tttattactt atattgcggc tctaaatgta atagaaggaa caatgacgct aggtatgatg    1320
atggcagctc agtacatatt agggcaactg aatgcccca taaaaagtat gattggttat    1380
gtacattccc tacaatttgc ccgcatcagc cttaaacgtg taaacgaggt catttgggaa    1440
gaagaaccag aaatatctga atcaaaagtt tccattccta tagaaaaagg cgttaaggtg    1500
aaagatttag atttttacta caaccctaat ttaaacaaag tattagacaa tataaattta    1560
gagataccgg agggaaagat tacagctatc gtaggggaaa gcggaagcgg taaaaccact    1620
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gtgccattag ataatatcga tttatatcgt tggcgtaata gttgcggtgc cgtattacaa    1740
gatggtaaac tttttaatga cactatctta tataatatca cattggaaga tgaagaaatg    1800
aacgtaaatc aaaaacaact agtgaaagcg attcaactgg caaacgcaga aaatttcatt    1860
aatgctcgcc cttttaaagct atacactcca cttggaacta atggttcagg attaagtcaa    1920
gggcaaaagc aacgtatact aatagctagg gcgatataca aaaacccaga cttcatattc    1980
ctggatgaag cgacaaactc tcttgacacg aataatgaaa aacagatttc caaaaatttg    2040
gaaaccatct tagaaggaaa aaccgccatt gtaatagcgc accgattaag tactgtaaaa    2100
aatgcccata atatagtggt catggaaaag ggaaaaattg tggaacaagg gactcatcaa    2160
gaacttataa atttaaaagg aatatattac gacctaattt ctagtcaatt agagattgga    2220
taa                                                                    2223
```

<210> 3206
<211> 1338
<212> DNA
<213> B.fragilis

<400> 3206

```
ctaaatgaaa aacatatgag gcaatttatt ctaataatga tttgtatatt actacaagtc     60
attcatgtgc atgcagggtc caaggacata acgtggaaat gggattattc cgaagcagat    120
gatatttta ttgatttgct tggcaaggcg gctactggat ttatggaaac gaatacgcct    180
aactgttatg gggggaaatt agtagtaaaa cttcccgagg gattacattt taagcaaaca    240
gaggcacctg cttttttgtt gattggcaat gcggaagaaa tagcttttaa cgttgacgta    300
aatgatagta tggctattct ttcattaaag acatcttcag tacaaactgt tccgtcagaa    360
gctattaata ttacacttaa tcctaaagcg attaaaggca aactcagaaa aggtatgaac    420
acaaccggta ggttgagttt tcatccatca gagattccta ccgtatttaa atcgccgata    480
acgggtagaa cgtatcattt agtgtttaat gatgagttcg atgatggagt gatagatact    540
ttaaatgggg atacgagaag tagaagaagt cctttacccc gtagaggtat gtatcaagag    600
aaaccttact atgtgctgtg tcatgaggat tggaccaaag agttgcatgg cgaacttcgt    660
ttggaagtct ctaaatactc gacacaaaac aatgttgtga tgaccggtgg gatttttatca    720
ctgggcaggt tcatggcacg ttatggttat tatgagacaa aggcttcatt tagagactgt    780
attggtgaag gttactggcc tgctttttgg atacattttg atgaagccga taagtatgga    840
aaaggaactg aaattgatgt ttttgaatat attcctaaag ataaacaaat ctttcagaca    900
```

```
cttcattggt ataaaaaaca agcaatggag gagcagcaat cagaagtgca acatgcagct    960
ctggattacg ataaaagtgg gcaatttaaa gaacaccgtt cgtctaccga gtattttgta   1020
ttggatgaag ctcagagtaa agagcataca tttgctgtgg aatggacccc cgaagaactg   1080
attttctaca cagatggtaa ggttacccgt cgggtgaatc ggaaagatga tcccaaacaa   1140
gtgccaagtg cttaccaaat ggtttatttc tcttgttccg caggagaatg gggaggtaat   1200
gtgatggaaa atcaagtacc tgcctatgtc tattttgatt attgcagatg ttatcaggaa   1260
agtgatcagg atgctattta caccgttaaa ggtaatggga tgaaagtttc ggcgagccgg   1320
cgtgtgggaa agctctga                                                 1338
```

<210> 3207
<211> 450
<212> DNA
<213> B.fragilis

<400> 3207
```
atttgcagaa ataatatgtc cggtcggccg atacacatcc atgtttttatc accggaccga    60
cctataaata taaaaatctt ctttatggca gaacacaacc ttctaggaaa agccggagag   120
gacgccgccg tcgactatct ggaacggcat gactacgtaa tccggcatcg taactggcgt   180
aaaggacatt tcgaactgga cattgtggca gctaaaaacg gagaactgat tattgtagaa   240
gtaaaaaccc ggagcgatac ggactttgca cttcctcaag acgccgtcac tccacaaaaa   300
atcaggcgca ctgtaatagc agccgataca tatatcaagt tattccaaat agatgaacct   360
gtacggtttg atattatcac cgtgataggc aaaaccggaa attttagaat tgaacatata   420
aaagaggcgt tttatccgcc attattttag                                    450
```

<210> 3208
<211> 363
<212> DNA
<213> B.fragilis

<400> 3208
```
agttttatga atatagaatc agcaagagaa tactgcctcc ggaaaaaagc agtcacagaa    60
tgcttcccat tcgacgaata ttcactcgtc atgaaagtaa tggataaaat gttcgccctg   120
atcgatctgg aagggggccaa tacgatttca ttgaaatgtg atccggacta tgccatcgaa   180
ttacgtgagc actattcggc catcgaagga gcttatcatt ttcacaagaa gtattggaat   240
caagtctact ttgaccggga tgcggatgac aagctgatca agcaactgat agatcattct   300
tacgacgaag taatgaagaa atttaccaaa aaattacgta ccgaatatga tgccctaccc   360
tga                                                                 363
```

<210> 3209
<211> 699
<212> DNA
<213> B.fragilis

<400> 3209
```
ataaaaatga agaagatgaa aaccttgact ttatttcttt ccttgctctt ttctttcccg    60
tttgtgcttt cggctcagat ggtgggagag actttgcaga aggtctctgc tgcccttgat   120
aacagacagt gggaccaagc tgttactttg ttccgccaag cggtaaatac caatgtagag   180
aaagccgaaa tgttctattg gacaggtgtg gataagagtc tggaagtatc atccaggatg   240
gggcgggaac tggctgctta ttacaaaaaa tcacgcagct atgacaaagc gtatcttttt   300
tataaagagt tgcttcaaaa atctccgaat gatgttaatt gtcttgtgtc atgtgctgag   360
atggaagtat gccgtgggag ggagtctgaa gctttggaga cttaccggaa agtactgtca   420
ttggatgcgg ataatctggc agccaatatt tttatcggta attatcttta tttgaaggcg   480
gagagagaga aaaaacagtt agaagccgat tataaaaaga ttagtgctcc cactcggatg   540
cagtatgcac gctatcgtga tggtcttagc cgtgtgatga gtaccggata cggaaaggca   600
agggaatatc ttcaaaaggt gatcagtcaa ttcccttcta ctgaagctca aaagacatta   660
gaaagaataa agcttataga aaaagaggtg aacagataa                          699
```

<210> 3210
<211> 2070
```

<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(135),(1301),(1345),(2035),(2048),(2049),(2050),(2051),(2052),(2054),(2058),(205
9)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3210

```
tatcgaagga aatccaccag aactttccat ccgtacttgg gattaatgca cactgcagaa    60
gagttcaaca acctgatcgt caaagaagag aaacgaccgc atcatccgtt ttcagtgata   120
tcggacgagc cgaantgggg ccctgccgac atcaaaagct acatgaagat gaatggtgta   180
cccatggtgg gaatcgttgt aatcccccag cggggtgcca accatataaa gatagccgat   240
gcggtatatg aacgcatgga gaagatgcag aaggacctcc cggaagacgt gaagtattct   300
tacggattcg ataacaccaa attcatccgt gcctctatca gcgaagtgaa agaaaccgtt   360
tacgtagctt tcatcctggt tatcattatt atcttccttt ttctgcgcga ctggcgtgtt   420
acgctggttc cctgcatcgt gattccggta tcgttgatcg gtgctttctt cgttatgtat   480
ctggcggact tctccatcaa cgtgctctcc atgctggctg ttgtgctggc agtgggtctg   540
gtggtggacg acgctatcgt aatgacggaa aacatctatg tccgcattga gaaaggtatg   600
cctccgaaag aggccggcat cgaaggggct aaagagattt tcttcgctgt catctctacc   660
accattacgc tggttgccgt attcttcccc atcgtcttta tggaggggat gacaggacga   720
ctgttccgtg aatttagtat tgttatttcc ggttcggtta tcatctcctc ttttgcggct   780
ctgacctttа ctccgatgct agccaccaag ttactggtaa aacgggagaa acagaactgg   840
ttctatctga aaacagaacc tttcttcgaa ggaatgagcc gcctctacag tcgttcactg   900
gctgttttcc tccataaacg ttggattgcc ctgccctttg tagcaattac cattggcatc   960
attgccttct tgtggaatta catcccggca gaaatggctc cgttggaaga ccgttcacaa  1020
atcagtatca atacccgtgg agccgaaggt gtgacctatg aatacatccg ggactatacg  1080
gaagacatca atgacctcgt agactcgatt gtaccggatg ccgaatcggt aaccgcccgt  1140
gtatcgagtg gtagcggtaa tgtgcgcatc acgctgaaag acatgaaaga ccgtgactac  1200
acccagatgg atgtggctga aaaactgtcg gcagcagtac agacaaagac gatggcgcgt  1260
tcattcgtcc agcagtcatc ttcttttggc ggacggcgtg ncggtatgcc cgtccaatac  1320
gtattgcagg ccactaatat cgaanagcta caggaagtac tgcccaagtt catggcgaag  1380
gtttacgaga acccggtatt ccagatggca gacgtagacc tgaagttcag caagccggag  1440
gcacgtatca atatcaatcg cgacaaagcc agcatcatgg gggtaagtac acgtaacatc  1500
gcacagaccc tgcaatacgg tctgagcgga cagcgaatgg gctacttcta tatgaacggc  1560
aagcaatatg agatcttagg agaaatcaac cgccagcaac gtaacacacc tgccaatctg  1620
aaatccatct acattcgtag tgacaaaggc gatatggtgc aattggacaa cctgattgaa  1680
ctgaccggtg gcatcgcgcc tccgaaactg tatcgttaca atcgtttcgt ttcggccact  1740
gtttccgccg gactggccga aggaaaaacc atcggacaag gattggacga aatggacaag  1800
atagccaaag agacgctgga cgacacgttc cgcacagcat tgaccggtga ttcgaaagaa  1860
tatcgcgaga gttcttcaag tctgatgttt gcttttattc tggccattgt actgatttac  1920
ctgatcctgg cagcacagtt cgagagtttc aaagacccgc tgatcattat gctgaccgtc  1980
cccctggcta ttgcaggcgc attggtcttc accacggggc tggaaggttc cgacnggtgc  2040
tcatgtgnnn nntnccanng gcgctctatc                                   2070
```

<210> 3211
<211> 561
<212> DNA
<213> B.fragilis

<400> 3211

```
gctatgagga agaatttttc aactatccta attgtcggtg cagccctttt agtggcttcg    60
tgtgtacaac aaaaagggtc tttcagccct gtagactatg tgaatcctct gatggggacg   120
gagtctactt atgctttttc acatgggaat acttatcctg cggtggcggt tccctgggga   180
atgaatttct ggagtccgca gaccggagag aacggtagtg gctggatgta cacgtatacc   240
gacagcctga tacgggggtt ccgccagacc catcagccca gtccgtggat taacgattac   300
ggtactttct ctgttatgcc gctgtccggt gtgctgaaga tggatcataa agaacgggga   360
```

```
gtacctttct cacataccca agaggaggcg gctccctaca gttacagcgt tacgtttgcc    420
gacggactcc ggacagaact ttccgctact tcacgcggag cggtattcga agtcaccttt    480
ccgcaggact ctgcccagta tatcgttgtg gatgcctaca acggtggaag tgcgttgacg    540
atagaccggg agaatcggta g                                             561
```

<210> 3212
<211> 1578
<212> DNA
<213> B.fragilis

<400> 3212

```
aaaaatactg atagcatgaa cgtaaataaa cccacaacag aaaagaaact catcgattta    60
aataatgata ttattcataa cttcgatgta agtatcgtta tgtctttcta taaaagatat    120
acagagttca aaaaagtatt accacataat gcaccctatt tacaacgaaa cggtattgag    180
gtaatcattg tcctagatga ccccgatgaa aagtcagaac ttctaatgct gcttcaaaat    240
tatccattca taaattggaa gctaattatt aatgaacgaa aacatgctcc tcgcaaccat    300
gcttccgtac taaatgtagg actcaagcat gctaccaaaa agtatatcct acaaatagat    360
cctgaagtag aattcctcac tgatattata tggcaaatga gagatgccat agagaaatat    420
cccatgcact atatcctcgc aatgatggca tatgtaccct atgagcagga acttacagaa    480
aataatataa aagagttgga tttttatcccg tggggcaatt tgatggtaga acgtaaccat    540
ctatacaaat tacatggtta tgatgaaaca ttcatcacat ggggtggaga agataataat    600
atgcgtgcac ggttggatat gtctggtatc aaaaaattca tcctcccaga ggcaaagact    660
attcatcggg aaaaaaatta tgatcccaac gaacgctcta aacgtatcaa taaacatagc    720
atttcagatt ggagaaaaat gaattatcct tcggaagcaa ttgctaacaa agatatttgg    780
ggaagtgaat ttaacaaagt catttacgac tggcaagaca atcaatatgc aaaagacttg    840
tgctatacat atctacagca atttatcggt ttcgaaatca gacaccccgc cgcatttcgg    900
aaaaggcaca aaaagatagt cctctgccaa gcgtacaacg aagaaaaact gatagaaggt    960
tttctaacaa atatggcaag ctatttttgac ggtatcattt tgctggatga tgaaagtacg    1020
gatcgaactt gggatttagc aatccatgac aaaatttttat taaaagtgaa aagaaaaga    1080
agtgggttca acgatttaga gaatagaaat atattactcg atttaagtgc cttcttccaa    1140
tccgaatggt tttgttttat ggatattgac gaaagatttg atgagagatt taccaatttt    1200
tcagaatttg agaataataa agagatacat gtggtaagtt ttaggggtgt gtatttatgg    1260
aacgatgaac aaagttataa aggtgatatt ccgaattcta caaaggtat cctcacagtt    1320
taccgaatgt tcagacctat agggcatact cacataaaca cccataagaa attacacttc    1380
atagcgactc cgtatttcac gaacacatgg caaagcaata tattatttaa agactatgga    1440
tccatgaaag aaaatgatcg aattagaaaa tatgaaaggt atatacaaga agaccaacaa    1500
aaggacatgt cgtcagggta tgattactta ttgaatagcg aaaatctata tcaactggat    1560
aaaattgaag aatattaa                                                  1578
```

<210> 3213
<211> 225
<212> DNA
<213> B.fragilis

<400> 3213

```
gagaattatg atatatttgc aaccaaaact aaaaaatgtt taaccggaaa tgacagaatc    60
gactatgatt gtcacacttt agaagaaatc ggattaactc tgcttaaaaa cagtcactca    120
ctcttctttt ctgttttct aatttcacag aaagcctata tccgctcctc ggtatcgttt    180
caagtgcgat gtcgggatcg gcaacaaggt attttcgtat cttga                   225
```

<210> 3214
<211> 468
<212> DNA
<213> B.fragilis

<400> 3214

```
gataggaaag agcctttca gaaagaaaca ataaaccaac atacaagtat ggaaatcaag    60
attcaatcac tggaacaaat tcacgaagct gcccgcgagt tcatctcagc catgggcgat    120
aacacggtct ttgcactcta cggaaagatg ggagcaggta aaacgacttt tgtcaaggca    180
```

```
ctttgcgagg agctcggagt atcggatgtc atcacttcac cgacttttgc cattgtaaac    240
gaataccgtt cggacgagaa cggagaactg atctatcatt ttgacttcta ccggatcaag    300
aagttgagcg aagtatacga tatgggatac gaagactact tctatagcgg tgcactttgt    360
ttcatcgaat ggccggagct ggtagaagaa ttattgccgg gagacgccgt gaaagtaacc    420
attgaggaac tggaggacgg aacaagaaaa atagtgatca acgactaa              468
```

<210> 3215
<211> 1596
<212> DNA
<213> B.fragilis

<400> 3215

```
ataactatgg acaataccag aagtgtatat ggtatcgatt tgggtaccac ctacagttgc    60
attgcacaag tagataaatt cgaccaagcc attgttctcc gcaatttcga aggagatgcc   120
actactccat ccgctgtata ttttgaggat atggaccatg ttgtcgtggg aaaagaagcc   180
aaaggtatgt tggccactga acctaccaaa acggcagtat tcataaaacg ccatataggt   240
gtagatgaca gtttcgataa aaatacaaac gaatttccct atcattacga cccaacagaa   300
atttcggctt tcatcttaaa aaagctggtt aaagatgcca cgatttgggg agataatccg   360
gaaccgatca aagatgtcgt tatcacttgt ccggcctatt ttggaaccaa agagcgtatg   420
caaaccaagc aggccggaga aatagccggc ttaaatgtac tttctatcat caatgagcct   480
acggctgccg cgatctctta cggtgtaaag actgatcaga aaaaaacggt tttagtatac   540
gacctcggag gcggaacatt tgacgttacc ctgattaacg tgaacggtgg tgccattaaa   600
gtaatagcca caggtggaga ccatcattta ggaggagtag actgggatac cgcattagct   660
gaatatatgc tggcagcttt taacgaacaa aataacactt cttattcgtt cgaagaccga   720
ttagacctaa aatatgagtt gttattactt gcagaagaca agaaaaaagt attgacagcc   780
aagcagacag cgaaagcaac ttaccaatat gaaggcaatt ccgcacgtat agagattagc   840
cgtgagttat tcaattcact gacagaaagg aaactggacg aaacgattga tgccaccaag   900
aaggttattg ctattgccaa agaaaaaggt tacaataata ttgatgaaat actgttggtg   960
ggaggcagta gccgcatgcc acaaataaag gaacgggtag ataaagaatt caattgtgat  1020
gccaaactaa ccgacccgga tgaatgtgta gccaaaggag cggcaattta tgctatgaat  1080
gccgcctatt cacaagcagt tcgcgactat gaagaaggag aaagtgatga taaaccggct  1140
cctctccgtg gagatcgcac cacagtggtc aatgtcacca gtaaaacata tggtaccgac  1200
gtaatcattg aaggacaaag catggtgcaa aacctcattt ttgcaaatag ttcgttaccc  1260
acaaaacgaa ttgaaacctt tactacttct attcctaacc aacgaggtgt atctgtgaaa  1320
gtatttgaaa gtgatttcac aaatatggaa acagaaagta tcgtggaaga aagattctgc  1380
acactaattg acgaccatac gcttaaactg agcaaagact ggcctcaagg tacccagatt  1440
tcagttacat atcagattga ccaggaaggt atcttgcacg gattagctta tgtagaaaat  1500
gataaacttg aattcgatct caaaatcacc ggtgtaaaat gtgaagaaga actcagaaaa  1560
tcaaaagcaa tcatcgacaa agcatcagta gagtaa                            1596
```

<210> 3216
<211> 1254
<212> DNA
<213> B.fragilis

<400> 3216

```
aaacacccgg acataaaggg aattgggatt catggcaccc acgacccatt atctattggg    60
acccggagcg acccgaggat gcattcgaat caaaaattca gaattagagc aattagtatc   120
tttaatccga gtgccaacaa ctgttatcat cacgccctct gtaaaagaca taaaaaccca   180
gtaaataaca aaccgatgaa aacattcaaa cgattcctgt tcatttgtat cggactattc   240
attatagtcc tctctaccca agctttggaa aagtatgaag tgaccgccaa tacttttcta   300
aacatacgta gtcatggaag cacaaatgct cctgtcatcg gaacaataaa tcatggagga   360
atcgtaaatg tagaatcaat agatggagaa tgggcaaagg tatccttcaa tggcggatat   420
ggatacgtaa gtacgaccta catacgacct gttactccaa cacctcccgc aaaaagctcca   480
acaaatacac tcagcgactg gtttcgacaa acaaattatg attgccgccc tttagtttat   540
atcatattag gactttctat tgtgctattc atccttagaa tgcgtcgtgg agaaagtact   600
ccgctagaag acagcgaaca tacgataaac ctcagtttat tcattaccgt ctgtttgtta   660
gaactatttt atgtgttttc aatgggcgca aatagtattt ggttttgcac tcccgataaa   720
ataggatggc tatggaccat cattaatttc tttatattcg gtgcagttgt atttaatcaa   780
```

```
tggatgtgtt ttttcaatac cttgaatgat gtgcaataca attcctacgc aactttcaat      840
tggacatggg gaatatatac ttggggcatc tgtatcatag gcgctatcat ttgtggcttt      900
ttctttgtag gctttttgcc tgtggtagga attggatttc ttgtcggaca atctgtgcaa      960
acaggtatta ttttcaataa agtacttccc aaaggtggat ggaaacatgc gtgtatctgt     1020
acattaactt atttaattgg ttcaacagcc actgtcttaa ttgtagctca tttcctcatc     1080
cttttactaa ttgtactaat cgctctcttt ctgctttcac ttttaggaaa atcatcttct     1140
tcatccggcg gtaaaagatg ctccaattgt agccacctca gtggttccag ttgtaactta     1200
agcggacgtt atatcagcag cccgtctacc acctattgcg ataattacca ataa          1254
```

<210> 3217
<211> 3219
<212> DNA
<213> B.fragilis

<400> 3217

```
ctcagggatt gttggcggaa gcagaagaag ccatccaatg gtataagaac ctgtttggag       60
acgattatta tctggaaatg cagcgccata aagcgacagg gcctaaagcc aaatcatgaa      120
gcttatccgt tgcaggtgaa tgtaaataag catttgattg aatactccaa aaagtataat      180
gtcaagttaa tctgtacgaa tgatgttcac tttgtcaacg aagaacatgc tgaggcgcac      240
gatcggctga tctgtttgag tacgggaaaa gatctcgacg atccgaaccg gatgtattat      300
acgaaacaag agtggatgaa gacgaaggca gagatgaatg aactctttgc cgatgtgccc      360
gaagcattga gtaatacact tgagattctg gataaagtag agtattattc aatcgatcac      420
gcaccgatta tgcctacttt tgcaatcccc gaggactttg gaacagaaga aggatatcgg      480
caaaaatata cggaaaagga tctttttgat gagttcaccc aagacgaaaa cggcaacgtg      540
gtgttgagtg aggaagcagc caaagataaa ataaaacgtt tgggaggcta tgataaactg      600
taccgtatca aactggaagc cgactatctg aaaaagctga ctttcgacgg agctaagaag      660
ttttatggtg atccgttgtc accggaggtc aaagagcggc tggtctttga attacatatt      720
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ccgcttgccg aatcggatcg cttggccaaa ttggttccgg ataaaattcc ggataagaaa     1140
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gataacgtta tcgatatagc gactcccgaa attctaccgg cggaacgttg gaacgatttg     2580
gagagactga ataaggaacg cgaactggta ggtatttatt tgtcggcaca tccgcttgat     2640
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attctgattc cccttgccga acttaattcg gctttggtag ccgagcttgc ttctttaacg    3060
aaagaacaca cgggaaatac ggaactttat ttcaaagtaa cggatacgga ggggaagatg    3120
tatgtagacc tgatttcccg tcctgtgaaa ctttcggttg gcagagaatt aatttcctat    3180
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<210> 3218
<211> 822
<212> DNA
<213> B.fragilis

<400> 3218
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ttcatcagcg gcggtatcac ccatgcctct ttcggcggca tcggactggg attgtatgca    180
ggcatatctc ccattttatc ggctgctgtc ttctccgttt tatcggcttt cggggtagag    240
tggctcagta aacggaaaga catgcgcgaa gattcggcca tagccatgtt ctggacactg    300
ggtatggcac tgggaatcat gttcagcttt ttgtcaccgg gattcgcacc cgatctttca    360
gcctatctgt ttggcaatat cctcacaatc acacagacgg acttactctt gctgggcatt    420
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atctcgttac tgaccattcc gcaaatgaca gccaacctgt ttacgaacaa gtttaaacgc    660
attatctggt tatcgattgc catcggctat ctgagttgcc tgggaggtct gctgatctct    720
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```

<210> 3219
<211> 261
<212> DNA
<213> B.fragilis

<400> 3219
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gagtctacac ggataccatc cagcaagcgt gtgcttgctt ttccggcgcg gatgtgtgcc     60
agtgcttctt ccagatacat cactgccata tccatcttct cttgtgattc ttcgataatc    120
gttttttacgt ctaccatctt attaagtatt tataaaattg gcactttgat tcattttgaa   180
aacaaaagta gattattttt tgattatctg caactatcta tagagagaaa tgcgttgcct    240
gacgtttctc tttctaaata g                                              261
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<210> 3220
<211> 450
<212> DNA
<213> B.fragilis

<400> 3220
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aaagcaggag agagaggaga agtccctgtt ggtgctgtag tggtctgtaa agagcgaatc    120
attgcccgtg cgcataacct gactgaaaca ctgaatgacg tgactgccca tgctgaaatg    180
caggccatta ctgccgctgc caatgttctt ggtgggaaat atctgaatga atgtactttta   240
tatgtcacag tggaaccttg tgtgatgtgt gccggtgcta ttgcttgggc tcaaacggga    300
aagctggtgt ttggtgccga agatgataag agaggctatc agagatatgc tccgcaagca    360
ctccatccta aaacagttgt tgtcaaagga atattggctg atgagtgcgc cgggctgatg    420
aaagactttt ttgctgctaa gaggaggtga                                     450
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<210> 3221
<211> 1293
<212> DNA
<213> B.fragilis

<400> 3221
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agagctggca gctctgcaaa ctcaaatcag gaagggaggg gatgtatgag aagcagtcgt    60
tggtttatta tcgggatcgt tctctttttg ctgatcatgt ttgtggtaga atctcatctg   120
ccgaagaaat tcgtctggaa tcccaccttt gcacaacatg atcaccagcc actggggtgt   180
gccgtgtttg atgatgtctt gaagtcctct cttccggatg gatattctct ttcgcgcaag   240
acgttctatc agttcgctgc tgacagtgac tcctgccaga gtattcttgt cattactcaa   300
catgtaaatc tggtggaggc ggatctcaat gctttgctcg atctggccca aaggggaaac   360
aagatattga tagccgcttc ctctttcagt acttcgctgt ctgatacgtt gggattcgac   420
aattcgtatg cttatttttaa tccgagacgg atgaaagagt atgcgggcaa tttattggag   480
cgtgacagtg tctgctggat tggggattca gcagtatatg ataagcgtac ttttcgtttt   540
tatcctcatt tatgtggcat ttacttcaca aagtacgatt cgttgtctct accgttagct   600
accaaacgga ttgattcgat gcaaatgttc aatgacagtt tgccggattg ttttccgccc   660
gtggccctta gtcgtccggt agggagcgga gagattgttt tggtcactac tccgttattg   720
tttaccaact atggaatgct cgatggcgac aatgcagcct accttttccg tctgctttct   780
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tatcaaaaga agaatcatgc tgatcttgtg cgcaaaaagt ttatttactt tgatgagagc  1080
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cgtcccgtga ttcgcgggca gcaggaagtc ggcgagacgt tgatgaaaga tctgattgac  1260
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<210> 3222
<211> 267
<212> DNA
<213> B.fragilis

<400> 3222
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aaggcaactc cggacgaacc taagcgggaa cgacggatga gcatattgct gagcgaagat   120
gagcagcaga ttgtggatcg ttatctggat aagtataaga taacgaataa atcacgctgg   180
cttcgtgaga cgattctcat gtttatacat aaaaatatgg aggaggatta tcctactctt   240
tttggtgaac acgatatgag gcgttag                                        267
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<210> 3223
<211> 255
<212> DNA
<213> B.fragilis

<400> 3223
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atgtttacgg ttaaagtagc cccgtcactg ctgatgtttt caaaagttga ttgggataat   120
tcaagtgtag catcggaggt ggaatcctca caactactga aaccaataag tactaaaagt   180
ataacgaata aatattctgt tttcataaaa gaatgttttt ttataaagaa cacagggtca   240
aagataatgg tttaa                                                     255
```

<210> 3224
<211> 198
<212> DNA
<213> B.fragilis

<400> 3224

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aggcggcaag gcaatagccc ggcgaaccgg tatatcggga aagccctgct caatgaaagt      60
gaatttaccc gtaactacct gacgcaccgt gagcttactt ccggaggaga gctggtgtta     120
tggatggaca gcgtgcccga ttcccggcgc ggcactcaga aggaagactt gccttactct     180
tactccaacg ggcactaa                                                   198
```

<210> 3225
<211> 279
<212> DNA
<213> B.fragilis

<400> 3225

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ggaactggag gacggaacaa gaaaaatagt gatcaacgac taatcatccg aagaatggcc      60
cctcaatatt ttgtacaggg aatatttgcc accgcagggc tcatagccct gctggcatct     120
atactcaact ggaactggtt ctttaccgct caaaatgcac aactgatcgt acggaatgtc     180
ggcagaggac gtgcccggct gttctacgga ctactgggag tcattatgat aggtatggct     240
gtcttcttct tcctcaatac gcaacccgta tcagagtaa                            279
```

<210> 3226
<211> 936
<212> DNA
<213> B.fragilis

<400> 3226

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gggcagttgg ttgaatgtaa gatcaaaggt aattttcggc tgaaaggcat acggagtaca     120
aatcccgttg ccgtaggtga ccgtgtacaa atcatactca atcaggaagg aacagccttt     180
atcagtgaga tagaagatcg gaaaaattac atcatccgcc gttcatcgaa cctctccaaa     240
caatcacata ttcttgcagc caacctcgac caatgtatgc tggtggtgac tgttaactat     300
cccgaaactt caaccacttt tatcgaccgc tttttagcat cggcagaagc ctatcgggta     360
ccggtgaaga ttcttttcaa caaagtggat gcttatgatg aagacgaatt gcattatctg     420
gacagcctca tcacgctcta tacccaaata ggttaccctt gttttaaaat atccgcactg     480
accggtgaag gagtcgatgc catacgcgag gaactgaaag gccgggtaac cctcttctcc     540
ggacattcgg gagtgggtaa atcaaccctc atcaatgccc ttgttccggg gctggaagtc     600
aagactgcgg aaatatcagc ttatcacaac aagggaatgc acaccaccac tttctccgaa     660
atgttccctg taccgggaga cggatacatt atcgatactc cgggaatcaa aggttttggt     720
actttcgata tggaagagga agagataggt cactacttcc ccgaaatatt caaaaacttcg     780
gcaaactgta aatatggaaa ctgcacacac cgccaagaac ccggttgtgc tgttcggaaa     840
gcagtagaag agcactacat cagcgaatca cgctacactt cctatctgag tatgcttgag     900
gataaggagg aaggaaaata ccgtgcggca tactga                               936
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<210> 3227
<211> 3198
<212> DNA
<213> B.fragilis

<400> 3227

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gcacctgccg gagtggtgca ggtagaacag cagaaacaga aaataaccgg ttgtgttctt     180
gacgttacgg gttctccgct tcccggggct tctgtattgg taaagggtgc tcccggacgt     240
ggagcaatca ccgatatgga tggtaacttc tcggttgaag cggaacaggg agagcaactt     300
gagatctcct ttattggaat ggaaacacaa gtcgtgaccg tttccgcaaa gacccgtctg     360
cagatcaccc tgaaagagga cagcaaaacc ttggacgaag tcgtggtggt gggttatggt     420
acacaaaaga aagccaacct caccggagcc gtagccagtg tttcggcaga gacattggag     480
agtcgcccga tcaccaatct tagccaggga ctgcagcctc cgatcggtaa cctgaacatt     540
tccgccgaca acggtgcgcc gggcaaagga tacgggttca acgttcgtgg tactacatct     600
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aatccggccg atgtggaaag cgtatctgta ttgaaggatg cggcttcggc ttctatttac     720
ggaacacagg cagcctatgg tgtcgtgctg attaccacca gaaaaggtaa agacgagaaa     780
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gccaagatct cgttctcgtc caactggtct atcaattcgc ctacacgcaa accggagtat    840
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gattactacg ataagaacta tatggatcat atctatgcct attataccga cccgaaacac    960
aatctgccgg tattcatcga tccgtccaat cccaacaagt atctgtattg cggcaacacc   1020
gactggatag atgaaaccat caaagacaac accctgatgc agcagtacac cctgtctctc   1080
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gccgaccttc gcccgatgat gccggtatat catccggacg gaaactttc cggtcagggc    1380
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catacggcca atccggacat tgtaaccgta ttcccgcata ccactccgag ccgcgtgaag   1620
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tatggagaga agtacaacgg gagcggccag cactcctggg ccactatggg atattttgcc   1860
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cagtggcgcg actttgactt tgatgtattc ttccagggca tcggcaagaa ggatgtagtg   2820
ttgggaggca accagttctg gggcttcggc aacgaatggc atgtaccttt caaacatgca   2880
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catgtgcgtt tttacgtaag cggacaaaac ctgctgacgt cgatcacct gtttgacata    3120
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ttaaacatta ccctctaa                                                 3198
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<210> 3228
<211> 432
<212> DNA
<213> B.fragilis

<400> 3228
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ttcgtaatta tgtggatact tatagttggt ctggtgttgc tcgccatcgt ggcaatgatt     60
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tttccggaag taaaggaagt cgacgtagag tgctgcggac agcacgaagt ttgcgaacgt    180
gacagcctgc tggctgccgt cagcaaacag atagagtatt atgacgacga agaactggat    240
acatttatcg gccgggcacc cgaagattat acaccggaag aggcggataa attccgcgat    300
gtcttttata caatgcagga caccgatgta gccggatggg tacgtagcct gcaactgagg    360
gggatcagcc ttcctgatga aataaaagac gaagtgtttc tggtagtcgg cgaacggaga    420
atccatccct ga                                                       432
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<210> 3229
<211> 222

<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (11)
<223> Identity of nucleotide sequences at the above locations are unknown.

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gttccggagt atgccatggg atctccgctc ttcccgaaac tgacattgca tttgcccggg   120
cggaaagaac ttcactgtga aggcggcaag gcaatagccc ggcgaaccgg tatatcggga   180
aagccctgct caatgaaagt gaatttaccc gtaactacct ga   222

<210> 3230
<211> 201
<212> DNA
<213> B.fragilis

<400> 3230
cttattgcta tttcagaaat atctattaca cacagtcgta ctatggctgg taacaaccaa   60
aataaaaaag cagcaatgaa aaaatatttg ttaaccattt ataaactctt attaaaatat   120
ttgttaatgt tgatttgtat cgttaaatgg gattcactac ttatatctat aatttgttta   180
tgtttgccgt ttttctgttg a   201

<210> 3231
<211> 723
<212> DNA
<213> B.fragilis

<400> 3231
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agcatagatc tcccttccgg atgggatacc attcctcatg acactctcaa aaagatattt   180
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aacaattatc tcacaatccg gagagattcc atactattga aggatgtca gtctttatat   480
gtatcgaaat tcggatacat cacactgatg ctttatcaaa agggaaatga cgctctcccg   540
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agatataccc ctccgcaaaa agaggggctt tcattcacgc attttttata tgccttgggt   660
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tga   723

<210> 3232
<211> 1356
<212> DNA
<213> B.fragilis

<400> 3232
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ttattcgtta tacttttagt acttattggt ttcagtagtt gtgaggattc cacctccgat   120
gctacacttg aattatccca atcaactttt gaaaacatca gcagtgacgg ggctacttta   180
accgtaaaca ttacctgtag tgactcctgg acagcagcaa gttcttctac agcatgtaat   240
ctcgttccta atcaaggaac gagcaatcaa tcactcagca ttgttgtgga agctaacctg   300
gatgaagccg aaagaaatat gacagttgtc gttacttccg gcggaatcaa gaaaaccatc   360
agcattagcc agcaaggaag aagtacaaca gcaggtgagt atcactataa ccttccggtt   420
attttccatg tactatataa agataaaaac aatcctttac aatacgttaa acaagaccgt   480

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ttagccaaaa tactagatac agtcaacaag ctttataaag ataaaaccaa aagtgtggat    540
atgaacttga cttttacgct ggctactact gatgaagatg ggaaacccct atcaactccg    600
ggagtgaaat atgtttttatg ggaggaaagt taccctatcg actgtgatgt cttcatgaat    660
gacgaaacag gtaaatatgt aaaatacatc tgggaaccga ataactatat caacgtaatg    720
gtatacaact tcaaggacga tgagagtacg aacagtacca cactgggaat tgcacatata    780
ccttttttcca cagtaggaag caattatctg gaaggactga gcaaaacaca aaaatcttat    840
ttagagaaac aaaatctgaa atttccatat agtgtctcca tcaacagttt attcattaat    900
gaccagtcaa cttcaaccca atatagtaca gcagacatca ccgtaacatt agctcacgaa    960
ttaggtcatt atctgggctt acaccatgct ttttctgaaa atgacgaagg tatttatgac   1020
ggttgctttg attcggatta ttgtgacgac accccctactt ataataaagt ggagtatgac   1080
gctgattacg cctacaccgc gaagaatgat ccggcaaact tcacgtttga ctatctggta   1140
aaacgtgaaa attgtaagac caatcagaca tttacttcta ctaatattat ggattattcc   1200
gtaagttact cagaccggtt taccaacgac caacgttccc gtatccgtca cgtcctgaca   1260
tacagtccgc tgatacccgg tcccaaacaa ggacaaacac aaacgcgttc cgttgtcgaa   1320
ggaccgattg atttacccat acgcacagcc cggtaa                              1356
```

<210> 3233
<211> 1020
<212> DNA
<213> B.fragilis

<400> 3233

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gctaccgagg cttatatcgg attttttggcc gatgatgaac ttcaaggacg tgaagccgga   180
tttcacggtt cacgtgtagc tgcccggtat atcgcttcgc tattgaagga aatgggtatc   240
cgtccgttag gcgagagcta ttatcagccg tttgatgctt accggaaaga acgccagcag   300
aaaggacgac tggaagtgca ccctgactcc attgccaaac tgaaacaagt ggtgcatcag   360
aagttgtcta tgaacaacgt attgggtatg attcccggaa agaagacgaa tgaatacgtg   420
atagtaggtg cacatttcga ccatctgggc attgatcccg ctttggatgg cgaccaaatc   480
tacaatggtg ccgatgataa tgcttccgga gtatcggcgg tgttgcaaat agccaaggcc   540
tttgtggtaa gcggacagca accggaacgg aatgtaattt ttgcttttttg ggacggagag   600
gagaaagggc ttctcggatc gaaatacttt gtgcaggagt gtccgttcat taatcaggtc   660
aaaggatatt tgaactttga tatgattggc cgcaacaatc agccgcaaaa tcccaagcat   720
gtggtttatt tctatacaga agccaatccg gctttcgggc gttggctgaa agaagacatt   780
aaaaagtacg gcttgcagtt agaacccaat taccgcccctt gggacaagcc ggtgggcgta   840
agtgataacg gctcgtttgc caaagccggt attcccatca tttggtatca taccgatggt   900
catcccgatt accatcagcc ttctgaccat gcagaccgtc tgaattggga taaagtggtt   960
gaaatatcta aggcctcttt ccttaacgtc tggaatctgg ctaacgaaaa ggattattaa  1020
```

<210> 3234
<211> 720
<212> DNA
<213> B.fragilis

<400> 3234

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gaaacaataa tggcaaatgc tataacccgc cacataccca atacagtaac ctgcctgaac    60
cttttttcag gctgcattgc cggcgtgatg gcttttgaag ctaagtatga actagctttt   120
atcttcatta tattaagtgc tgtcttcgac tttttcgacg gcatgctggc acgactgctt   180
catgcatatt ctccgatagg aaaagaactc gactcactgg cggatgacgt cagttttgga   240
gtagcccctt ctttacttgt tttttcattt ttgaaagaac ccggattgat ataccccgac   300
tttctggcag gattaagaga ttatatccct tatctggcat tccttatctc tatttttttct   360
gctttacgtt tggctaattt taacgtagac gagcggcaaa ccagttcttt cataggcctt   420
ccggtaccgg ccaatgccct ctattgggga gcgttaatcg taggtggcaa agattttctg   480
ctggcacatt gcaatgttat ataccttatt ataatggtaa tgctctttttc atggttgctt   540
gtggctgaaa ttcccatgtt ctctctgaaa ttcaaaaatc tttcttggaa agataataag   600
gtaagtttca tatttctgat tgtctgcatt ccattactac tgtttctggg tatcagcgga   660
ttctcagcag ttattgtgtg gtatatcatt ctttcacttt taacaagaaa aaataaataa   720
```

<210> 3235
<211> 696
<212> DNA
<213> B.fragilis

<400> 3235
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atagcgcaaa tgggtcgact taagaaatta aaaaagataa gaattcaccg tgaaggaaca   60
catattttat ggggtagttt ttttctgcta ctgatcataa atctggctct ttactgggga  120
attgattgta aaataccatt ctatctggtg gctttggtaa gtatcgtcgt ctatctgttg  180
atggttaact ttttccgttg tcccatccgg cttttcggac aggatacaga aaagattgta  240
gttgcaccgg cagacggaaa aatcgtagtc atcgaagaag tagatgaaca tgaatacttc  300
cacgatcgcc gcattatggt atctattttc atgagcatac taaatgtaca cgccaactgg  360
tatccggtag acggagtggt caagaaagtc actcatgata atggtaaatt catgaaagca  420
tggcttccga aagccagtac agaaaatgaa cgttcaatga tcgtcatcga aactcctgag  480
ggagtagagg taatggcacg gcaaatagcc ggtgcaatgg caagacgtat tgtaacatat  540
gccgaaccgg gagaagaatg ttatatcgac gagcatttgg gattcataaa attcggttca  600
cgtgtagatg tatatctccc gttaggcaca gaaatctgtg tcagcatggg acaattgacc  660
accggtaacc aaactgttat cgccaaatta aaataa                            696
```

<210> 3236
<211> 1512
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (1420)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3236
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accgggagaa tcggtagcgt gaccggtgtg gcgcgtaatc acaatggcgg tgtaccggat   60
aactctgcca actatttccg aatagagttc agccatccca ttgcagaaga aggcgtatat  120
gacggagata cactgatgcg ccatcggccg acgttggaga gtgattatac ttgtgcctac  180
ctcaggttta atgtgccggc gggagagaaa ttaaccgtcc gtaccgcctc ctcgttcata  240
agtcctgcac aggcgcttgt caatttcagt cgcgaagtgg gaggcaagag ccttgcccag  300
gtgagagaag aagcccgaaa acaatggaac agttatctgg gacgaattga agcggaggga  360
ggcagcgagg agcaattgcg taccttttac tcttgcctct accggaccct gctcttcccc  420
cgcgaatttt atgagttcga cgctcagggg aaacctgtct attacagtcc ttacaatggg  480
aagatacagg atggctatat gtataccgac aatggattct gggatacgtt ccgtgccgtc  540
catcccttgt ttaccttatt atatccggaa gtttccgagc gggttaccca atccatcctc  600
aatgcttacg atgaaagtgg gttcatgccc gagtgggcga gtccaggcca ccgggaatgt  660
atgattggta ataattccat ctccttgttg acagacgcat ggatgaaagg cattcgtacc  720
atctgtccgg agaaggctct tgaagcaatg attcatcaga ccgagggccg gcatcccgga  780
atcagttcgg tggaacgtga cggattcggt tattatgacc gtttaagcta tgttccctat  840
cccgaagtgc acgaggccac ggccaagacc cttgaatatg cttacgccga ctggtgtgtc  900
gcacgttttg ccgactccat tggccggaaa gagattgccg atacctatta ccggaaagcc  960
ctcaactacc ggaaccttta ctatcccgac tatggattca tgtgggcaaa agatgccaat 1020
gggaaatgga gagacgcttt tgacgcgacg gaatggggag gcccttcac ggagggcagt 1080
tcctggcact ggacgtggag tgttctgcat gatcccgaag gcttgtctcg attgatggga 1140
ggacatacag cgatggaagc ccgtctcgac tctatgttta cagctcccaa tacctataat 1200
tacggtactt acggttttgt tatccacgag atagccgaga tggtggctct tgatatgggg 1260
caatatgcac atggcaacca acctgtgcaa catgccatct atctatacga ctatatcggc 1320
cggccctgga gacccagaa gcacgtccgc gaagtgatgg ataagcttta tcactccggc 1380
agcaaaggct actgcggtga cgaagataat gggcagactn ccgctggtat gtcttttccg 1440
ccatgggatt ctatccggtt tgtcccggtg ttccggagta tgccatggga tctccgctct 1500
tcccgaaact ga                                                      1512
```

<210> 3237
<211> 912

<212> DNA
<213> B.fragilis

<400> 3237
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aaaacccgga tcgctttccg taaggtgggg caggaacgta ctgtcgattt ggtgttgaca    60
gctatttttgg ctaacggtca cgtcttgata gaaggagtgc cgggagtagc caagacttta   120
cttgcccgcc tgacagcccg tttgatagat gccgacttca gccgtgtaca gtttacaccc   180
gacctgatgc cgagtgacgt cctgggtacg actgttttca atatgaaaac caatgaattt   240
gatttccatc ggggacctgt ctttgccaat atcatattgg tagacgaaat taaccgtgca   300
cccgccaaaa cgcagtccgc tcttttcgaa gtcatggaag aacgtcaggc cagtatcgac   360
ggaacaactt accggatggg agaactatat accattctgg caacccagaa tccggtggag   420
caggagggaa cttataagtt gcctgaggcc caactcgacc gtttcctgat gaagattacc   480
atggactatc cgtcacttga tgaagaaatc aatatcctgg aacgccatca cactaatgcc   540
gccttggtaa aactggaaga gatacaaccg gtaattaccc gtgaagaact cctttctctt   600
cgtcgattga cggaaaaggt atttgttgac cgtactctgc ttcagtacat tgccttgatt   660
gcccaacaaa cccgtaccag taaagctgtg tatctgggag cttctccccg tgcttcggtg   720
gctatgttgc aggcatccaa agcctatgct ctcttacagg acgtgactt cgtaacgccg    780
gaggatatta agtttgtagc accttatgtg ttgcagcatc gcctgattct gactgcggaa   840
gcaaaaatgg aaggttattc gcctgtcaag gtgactcaac ggttgattga taaagtggaa   900
gtacccaaat aa                                                        912
```

<210> 3238
<211> 1020
<212> DNA
<213> B.fragilis

<400> 3238
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ttctcttact tttgcttccg gtttcggaca aaacttatcc ggagccgaac cggttggatg    60
aaagaggtaa cgtttatacg tcggaatatt gaaaaatgga aagagactga gaaggtggtg   120
gagcaggcag ataaactgac tcctgaccgt cttgccgacg cttatacgga acttacggca   180
gatctcgcgt ttgcacaaac tcattatccg tcttcccgca ttactattta tctgaataat   240
ctggcttcgg ctcttcataa tgtgatttat cgcaataaga aggagaaatg gacccgtatc   300
tttactttct ggacgcaaga ggttccgcaa acgatgtacc atgctcgtaa agagttgttg   360
gtttcggtcc tgattttttg ggccagcgta ttggtgggca ttgtttcagc agcgaatgat   420
gataacttcg tccgcctgat tctgggcaac ggctatgtgg atatgacact cgataacata   480
gcgcgtggtg agccgatggc tgtgtacaac ggttcggaag aggtacctat gtttctgggc   540
attactttaa ataatatcat ggtttctttc aatgtctttg caatggggtt gctcaccagc   600
tttggaacag gatggttact gtttaataac ggagtgatgc tcggtgcttt tcagaccttt   660
ttctttaaac atggtttgtt gggcgaatcc atgcttgcga tctggttgca tgggactttg   720
gaaatatggg ccattatcgt agccggtgct gcagggttgg ctttaggaaa cgggtggctg   780
tttcccggaa cttattcccg taaagagtct tttatgaggg gagccaagaa agggctgaaa   840
attatagtag gtacagttcc tatctttata atggccggat ttatcgaagg ttttatcacg   900
cgtcataccg aattacccga tgttttgcgg ttgggcatca ttctattgtc actgtcattt   960
attatctatt actatattta tttaccaaac agaaaaactc atggaatcac aaaaacctaa  1020
```

<210> 3239
<211> 2679
<212> DNA
<213> B.fragilis

<400> 3239
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agaaggttgg gatgtttgtt tgctatcgga atgatgtggc tttgcatagt cgattgcttc   120
tcgcagggac ttctttttcta tgggaacgaa aagcggatta gtgagcgtgc cacctattct   180
gttttgcgtg aagggcacga gcgcactttc accaacgctt ccgtatctc ctttgattat    240
ctggtccgga atgtggagag tcccggttac atcctttatc tggaagaccg ggatgccggg   300
aaaacttata gttttacgta tctgcacaaa cccggcgacc gttgttcttt ctccttcaac   360
gaagacggca aacgtatctt ttgtactttc gaactggata aggaagacta tgatcaccgc   420
tggttgcctg tttccatagc tttggatata cccgcagact gtgcccgaat tacgattggc   480
```

```
aagcggagca aggagatctc caacctggga ctggagccga caggattctc accgcatatt      540
tattttggta aatgcgaata catcctggat gtggcttcgt atgccatccg taacttgtct      600
cttaccgacg gtgaagagat catgatattt cctttgaacg agagcagcgg agaagatgtg      660
cacgacagcc ggggacatgt tgtgggacag gtcaccaatc ctgtgtggct gattaatcag      720
tcctactact ggaaagaact ttttacggac tattcttcca cgccttccgg tcttaacttt      780
gacaagacac accagaacat cctcttcttt aatcaggact ctctgtccgc gttcgacctt      840
tacacgcacg aattatcgaa gacaccttat aagacccctc ttccggttca gcttcgcctg      900
ggtatgaact ttctggatga ggcatcccgt gaactgtaca cttatgaagt ggccgattcg      960
catggcgatg ccatggtggc ggcgctggat cttactacca aagagtggcg tccggccagt     1020
tccgactatc tttgccaaca gctccatcat cattgcggat tctttcatcc gggcgaaaga     1080
aagttttttcc tgtttggcgg ttacggaagc cgtagataca gcaatacgtt cctggcgtac     1140
gatttgaata cctgtcgttg ggatacactg gccttctccg gcgaccgggt gattccccgt     1200
tacttttcgg gcatggctgt gagcaatgat tacaagcggg tatacctcta cggaggcatg     1260
ggcaacgaag ccggtgatca gaatgtaggg cgcaactatc tgtacgattt ataccggata     1320
gatatgcaga cccgttcggc gcagaaactc tgggaagcga aagcaccggc ggccaatccg     1380
gtgggacccc gtaatatgat actctctgcc gatgaaaaac acctgttcct cctgggatat     1440
ccagaatatc tgcccaattc cactttgcag ttgtaccggt tgtctgtgcg tgacggtgag     1500
tgtgaagcgg tgggagacag tattcccatt gtttcggaag agattgctac caacgccaat     1560
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gggcaagtga ctacccgtct atactccctg tctgctccgc cggttacatt ggacgatgtg     1680
gaatactata gccggaggcg gaatgccctg aatgccggtc tgctgggagc agtcgtgggt     1740
ggagtattat tgttggcggc ctgtgtatgg ggcatcatgc accataagcg gaggcgggac     1800
aggacgtctg ccgagaccgc atctgccgga gtacgtccgg aagaagtgtc cgatataccg     1860
gaagttccgg ctgtggagtc accggaagtg aaagaagaag aagttgagaa agagccttcc     1920
gagtgggaag aattgccggc cgtattgccg cccgacaaga atgctatttt cctttcggc      1980
atgtttacca ttctcgataa tgccggacgt gacattacct atatgctcag tcccaagctg     2040
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gacatgaatc agatattctg gcccgataag tccggcagca atgtgaagaa cctcaaagga     2160
gtttccatga atcatgtgag gaagatattg caggatgtgg acggcatcga actcgtatac     2220
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tggttggaaa tacttttgcg gggtaagttc atacccgccg ccgagtccga cctttttcgat    2400
tactacaaac agaaagtgga aacgctgatc cattctcttc tgcccgggca gttggaactg     2460
gcttacgggg atgcccggtt cagtatcgtc atccgtcttt gtaacatcct ctttatagcc     2520
gatcctttgt cggatctggc acttgcttat accgtttgta cccttcggaa gcagaacaac     2580
caggaggaag ccatcaggcg ttatgccgcg tttacgaaag attatagacg ggtgatgaac     2640
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```

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<210> 3240
<211> 1425
<212> DNA
<213> B.fragilis
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<400> 3240
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tttcttcaag ccttttggat agttcgtatg taccagagat atgaggagca atataccgaa      180
caagtaaata aagctttctt agatgctatt ggaaaagaag tagagcttag aatcaggtat      240
gtagaggaat ttaagacccc tattcttatc aagcctaccg gatgtgtctc tgaaaaggaa      300
cgaaccggct acaaaggtga caccattgat ttagtacttt taaaacagaa tgacatagtt      360
cgaaatgttt ctgaatttct tgcacaatta gagcaagacg aattactctc tagtcgggtg      420
tctcctgtat tacctgttat agacagtctt cttcgggaag agttatcggg tttgaaaata      480
gaccattacc tgtccttata tgataaggag ggaaagatgg ttgattcttt ggggaacact      540
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cttttatgc aaatagagtc caaactgccc tatgacgcta tcctgtccaa aatgttttat      660
tcccttcttg tttttgcatt gattataatg tttgttgtgg atgtcttat ccatcagtta      720
agagttattc gtcaaaaaga tgaactgcta gagaggcgtg aagtgagtgt gaacgggatt      780
gttcatgacc tcaaatcacc attgaatgca cttgtcactt taaccggctg gcttatggaa      840
acggaatcag atcttcggaa gaaagaattg atggctgaag ttataaagcg tgccggacac      900
```

```
cagacggcgc aaattgagtc tatattggtc tgtgccagag gggcggcgca acccattgtt    960
ctgaacaaaa ccgaaataaa tccggaagaa atagtacaag cggcaattga tgacatctgt   1020
gttgaattga aagctaagcc acatagtatt gaggttataa acgaagcatc cggattaacg   1080
tgtttgggcg acagaggcta tttggagaat gtgatgaaga acttgataga aaatgcgttg   1140
aaatatgcgg atgatggagt gaaaatacag attgaaataa caagaatctc acaaggaata   1200
cagattaaag tgaaagataa tggttgggga attgctccga agtatcaaaa aaaactattc   1260
aatcagtatt atcaggtccc ccgggaagca ttgcgaatgc ggaaagggta tggtatagga   1320
ttggcatatg tccggcatat tatccgggca catggtggta aaatccagtt caagagccgt   1380
gagaatgaag gaagtgtatt tacgttttat attccggaaa aataa                   1425
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<210> 3241
<211> 642
<212> DNA
<213> B.fragilis

<400> 3241
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agatgctcgt cgaacgggcg ggtatcactc cgaagcgcct ggtggagatg gccgtgtatt    60
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gcaaatttgt tttatgctta cacaagggag tgttatgatg atgtggatga ggcaagaatc   180
acgccttata cactcttgtc acctttggag atctcggtgg gagtggtgga tacggcatgg   240
ttttggaaag cctacaatgc actgggacgc gaacgttacg aaaaagtttt cgcggcttcc   300
aaggctgtta cggaatcttc cggtgtgtat agccgtttcc ggaagtatac ggatgctctt   360
gtgggaaagt atacgatagc acagttggaa agcctggtga tggataaccg gaataaagat   420
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gcgcggctcc gcttcctcaa ggctttctgg ctaagcagtg acaccctgtc cggacgtcat   540
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gggaatctgg ataccaggtg gtttaaaaag aaggtctggt ga                      642
```

<210> 3242
<211> 297
<212> DNA
<213> B.fragilis

<400> 3242
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aatacggaat attctcaatt caagatagac tgggcggtag ataaagacgg aaagccggtt   180
catctggacg gcatcgactt cgtgaagatt tatacagcgg tcaaccagaa ctgcggttgg   240
ctgggtgaag cctctacgga gatacaggcg gtggaagatt tacactacaa gaaataa      297
```

<210> 3243
<211> 1575
<212> DNA
<213> B.fragilis

<400> 3243
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atattcagct gtttgatgct gatggctcct gcggctgtgc aggcgcaatt tgacaaaggc   180
ctaaactata agattgaaac cagtgcaacc gtaagtggtg ggcacaacac gccttttttgg   240
ctcgtggcaa ataagcacgg gctttcgtct attcgaaaaa acaatgctta tttggatgcg   300
ggtatctttc gggatttgga gaaggataaa aagttctctt atgcctttgg gttggaaatg   360
gtgggtgcaa gtcgcttcac ttctaaattc ttcatccaac aggcttatgt ggatttgcgt   420
tatcggggga tggaaataag tgtcggcagt aaggagcgtg caacgaaat gaaaaatgat    480
cagttgagct ccggtagtat gactttttct accaatgccc gtcctattcc gcaagttcgg   540
gtttctatac ccgagtatat tccttttccg tggactaaaa actggttgca tatcaaggga   600
cacgtggctt atgggatgtt tacggatgaa aagttccagg agcgtttcac tgccgggcgt   660
tctaaatata cgaaagagac tctgtttcat tcgaaagcag ctttcctgaa ggtggagaat   720
ttgcagaagt cacctgtttc ggtggaattg ggtatcgaga tggcagctca gtttggaggc   780
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gattgctatt atccggacgg gacggtattg cgtacaccgg acagttggaa agactttttc    840
cgtattttct ttccaagcaa cggagacagt ggagcttcgg agagcgacca gataaatatt    900
ctgggaaatc acgtcggaag ttacagtgcc gctgtgggat atcattttcc gacctggaaa    960
ataaaggctt actgggagca ctttttttgag gaccgctcgg gaatgacact gacttatggt   1020
atgtggagag attgtctggc cggattggag gtgacgttgc cggagaatcc ttttgtgaaa   1080
acgattgtcg gagagttttt gtatacgaaa caccaatcgg gagctttcca ttactttgct   1140
actccggcca ttgatcattc gtttaccgga gctgataatt attataataa ttcgcagtat   1200
gccggttggg aacattgggg acagggtatt ggtaatccgt tggttacctc acctatatat   1260
aataaggatg gaaacctggc ttttgagagt aaccgtgtga aaggattcca tatcggtttg   1320
aatggcagtc ctactccgga gatagattac cgcattctgg taagtgttgc taagcattgg   1380
ggaacttacg gtagtccgta ccggaatatc agaagaaacc agaacgggtt gttagaagtg   1440
acttataaac ccgaacagat tcggggatgg agtttcacgc tggccggtgc ggtagacggt   1500
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ggtaagaaga aatga                                                    1575
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<210> 3244
<211> 357
<212> DNA
<213> B.fragilis

<400> 3244

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tgtaagcaac caccacttgc cactgggaaa cgtttcctgg gaaggcgctt atcaacagaa    180
acgagtcaga agacctgcct gtgcatcttt ttcattgctt tcgaggaaaa agcgttgagt    240
ctaatgagcc ggaactattc catccgtcat tttattcatc actctgattc agagaaagta    300
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<210> 3245
<211> 1794
<212> DNA
<213> B.fragilis

<400> 3245

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tatcagaggg agaaagagta taaagtagag ttactgaata tacagttaca agattgcaat    180
aatctgctgt acgagaagtt gtacgatcac ccacaggata tgactgaggt gatctccgac    240
tacctgcaac ataacgtatt gaaagatttg cgcatcactg tagtaaacct cgatgggaaa    300
gtgctttttcg acagtcagga acagaatgtg gagcagttgg gcaatcatct cgaccgggaa    360
gaggtacaaa aggccttgta caatggggtc ggcttcgatg tacgccgcac ctccgaaaca    420
accggagtcc cctacttcta ctccgccacc ttatataagg actacatcat ccgctcggct    480
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accgttatcg tcaccctgtt gctgatgatc atcttctata agtttaccaa caagctgggc    600
acttccatca gccagctccg cgaattcgct atgcgtgccg accgcaatga acctatcgaa    660
atggcgatgc agtcggcctt cccccacaat gaactgggtg agattcgca acacatcatt    720
cagatataca aacgtctcca cgaaacgaaa gaggcactct acatcgagag ggagaagctg    780
atcacacacc tgcagatttc gcatgaaggg ctgggagtat tcaataaaga caaaaaagag    840
atcctggtca caacttgtt tacccaatac agcaatctga tatcggactc aaacctggaa    900
acggcagaag aggtattcaa tatcagcgag ctcaaagaga taacggactt catcaacaaa    960
gctcccaaac gtcccgtcgg caaggaggag aaacgaatgt ccatcactat caataaaaac   1020
gggaaaactt ttatcgtaga gtgcatcatc ttccaggata tgagctttga gatcagcatc   1080
aacgacgtca ctcaggaaga agagcagatc cgcctgaaac ggcaactgac acaaaacatc   1140
gcgcatgaat tgaaaactcc ggtcagcagt atccaaggtt acctggagac cattgtcaac   1200
aacgaaaacc ttccgaagga aaagatgaat gtgttccttg aacgctgtta tgcacagagt   1260
aaccgcctga gccgattatt gcgtgacatc tccgtactga cgcgtatgga cgaggccgcc   1320
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gtatccctgg aactggaaga gaaacacatc acggtggtca attcactgaa gaaagagatt   1440
cagatacggg gcaactactc gctgctctac tccatcttcc gcaacctgat ggacaatgcc   1500
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atcgcttacg ccggaaacaa tatccaaatc cacatcaact gtttccgcga agacgagaag    1560
ttctactact tcagctttgc cgacacaggc gtcggagtgt cgcccgaaca cctgaaccgt    1620
cttttcgagc gctttaccg  agtggacaaa gggcgctctc gcaaactggg aggcacgggg    1680
ttaggactag ccattgtcaa gaatgccgtt atcctccacg gcggaaacat atcggccaaa    1740
aacagccagg gaggcggtct ggagtttgta ttcaccctgg ctaaggagag gtag          1794


<210> 3246
<211> 972
<212> DNA
<213> B.fragilis


<400> 3246
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ccttccgaaa agcaagatac ggttaaaatt ttcaatttac cccagatacc tgtagtactg   180
aataccgtag aacaacgtac ggactatatg gtaaaacact attgggatcg tttcgacttc   240
tcggacacca cctacatcaa tcaggccgaa gtgcccgaac aggcttgggt agactattgt   300
gacctgctgg aacatgtgcc cttgcctgtg gcacaaactg ccatgaaaga aactttcaac   360
cgggcggaga agaaccggaa gatgcttcat ttctttgagg aactggccga taaatatctg   420
tacgatccca actcgcctat gcgcaacgaa gaattctata tcccggtact ggaagccctg   480
attgcctctc ccgcactgga cgaaacggcg aagatacgtc cgcaggcacg gttggagctg   540
gcacagaaga accggttagg cactaaggca ctcaacttca cctacacatt ggattcgggc   600
gccaagggta cgctttatca gttccctgcg gaatacacac tgctgtttat caacaatccg   660
ggttgccatg cgtgcgcgga gatgatagag gggttaaagg cttctccggt catcaacgga   720
ttcacagccg ccaagaaact gaaagtcctg tccatctatc cggatgaaga attggatgaa   780
tggaaaaagc accgcaacga ctttgcgaaa gaatggacca acggatatga taaagaactg   840
gtcatcaaaa acaaaaacct gtatgacctg agagccattc ccactcttta tttactggat   900
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gagcgcggct ga                                                        972


<210> 3247
<211> 1899
<212> DNA
<213> B.fragilis


<400> 3247
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ggccagcgta tcggcttgat cgctaaaaac ggtacgggca aaaccacctt attaaatata   180
ctctccggaa aggagggata tgatagcggc aatattgtgt tccgccgtga cctccgggtt   240
gattatttgg aacaagatcc gcaatatcct gaagaattga ccgtgttgga agcctgcttt   300
caccatggta acagtaccgt ggagttgata aaggagtacg aacggtgcat ggaaaccgaa   360
ggacatccgg gactggatga cctgctggta cgtatggacc atgaaaaggc ctgggagtat   420
gaacagaagg ctaaacagat actttcgcaa ctcaagatac ggaactttga ccaacaggtg   480
aagcatctct ccggaggaca gcttaagagg gtagcttgg  ccaatgcttt gattaccgaa   540
ccggatttgc tgattttgga cgagcctacc aaccatctgg atctcgacat gaccgaatgg   600
ctggaagagt atcttcgccg tacgaacctc agtctgctga tggtgacgca tgaccgttac   660
tttctcgacc gtgtctgttc cgaaatcatc gagatagaca accgtcaggt ttatcaatac   720
aaaggaaatt acagttatta tctggagaaa cgccaggaac gcatcgaagc gaaatcggtc   780
gagatagagc gtgcgaacaa tttatatcgt accgagttgg actggatgcg tcgtatgcct   840
caggcacgcg gacacaaagc ccggtatcgc gaagatgctt tttatgaact ggagaaagtt   900
gccaaacaac gatttaacaa tgacaatgtg aagctggaag tgaaagcttc ttatattggc   960
agcaagatat tcgaggctga tcatctctat aagagctttg gtgacctgaa gatattggaa  1020
gatttctctt acatcttcgc ccgttatgaa aagatgggaa ttgtggggaa taacggtacg  1080
gggaagtcta ctttttataaa aatattgatg ggacaggtgc agcctgacag tggtacactg  1140
gatattggag agaccgtacg tttcggatac tattcgcagg acggattaca gtttgacgag  1200
cagatgaaag tcattgacgt tgtgcaggat atcgccgagg tcattgagtt gggtaacggc  1260
aagaagctaa cggcttccca gtttctgcaa cacttcttat ttactcccga aactcaacat  1320
agttatgtat acaaattgag tggggggagaa cgccgtcgac tttatctctg taccgtgctg  1380
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```
atgcgtaacc cgaacttcct ggtacttgac gagccgacga atgatctcga tattattacc    1440
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gaccgctact ttatggataa agtggtcgac cacctgttgg tattcaacgg acagggagat    1560
attcgtgact ttcccggtaa ttacagcgat tatcgtgact ggaaagaagc caaatcccaa    1620
aaggagaagg aggcggagaa accacaggaa gaaaaaacag cccgtgtccg cctgaacgag    1680
aagcgcaaga tgagtttcaa agagaaacgg gaattcgaac aactggaaaa ggaaatagcc    1740
gagctggaaa cagagaaact acagatagaa gaactgctct gcagtggtac gctttcggta    1800
gacgaactga cggagaaatc gaagcgattg cccgaggtaa acgatctgat agacgagaaa    1860
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<210> 3248
<211> 855
<212> DNA
<213> B.fragilis

<400> 3248
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ggttatcaac attcagaaag caatatgata caaggcaaga aatttatctc cccgggggaca    60
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cttttttata atcccgaaca ttggacgggt aatttccgta tatcagccta taaagaagat    180
gctgccgcac ctggcggtat gaattatgga aaggattccg tccgtcagga actgaaagaa    240
aacccttcgg cctccctggt gaaggtggga catctggaat gtgcctacag caaggagatg    300
tttgaggaag aaggtaccta ttacaccagc catctctggg tgacaggcat tgacaatgtt    360
gctttcgaat gttcgtttac cgtaccgaaa ggagaacatg tggatgaggc ggaaaagatt    420
atatccagcc ttgagatccg taaagacggg caaaagtatc ctgcggaaat cattcctatt    480
cgcctttctg agatttatca ggtgaacgaa gcctacgagt gggtgacaga tacggtgaaa    540
acgcaattga aaaaagactt tcagggactg gaagaagacc tgcaaaagat acaggatgtg    600
attgacagtg gcgttctctc tcctaagaaa aaagaaccct ggctggcgtt cggtatcgcc    660
atctgtacga ttctggctaa tgaagtggag ggtatggaat ggatgacgct ggttgacggt    720
aaccgtgaag tgccggtgtt gcggtatgaa ggttcggaac agttgattga tccgatgaaa    780
ttgctgtgga gccgggtgaa agccggagaa gcctgcgaag tggcagaggc atataagcag    840
gcactgatac actaa                                                     855
```

<210> 3249
<211> 390
<212> DNA
<213> B.fragilis

<400> 3249
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ggaaagaaat tcgggcatcg ctatctggat ggaatgtggc agatgcaacg tatagaatat    120
aaagatggta atatcgatac tccactggac acttatttca gttttcagat ggatatcatc    180
cacttgagga agttgggtaa tagtgagttc tatggaaaat atgtctacga gaacgactcc    240
atgcacatac aagtactcga cgctacggcg gaacagatga aagttttcgg catggatggc    300
cgggtacagg actttgccgt agagaagctg aacagtaaca aattggttct tcagtcggac    360
tatgcccggt tggaattcag aaaatattga                                     390
```

<210> 3250
<211> 1749
<212> DNA
<213> B.fragilis

<400> 3250
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gatactaaag atactccaga cattgaatca gtaattatca aaagaatcag caatatgaaa    60
acaacttcat tcaataacgg cagaagcaat tcctcttccc tctttcggag aggtatcgga    120
ggcgtgtcct tctttttcct cctcttcctg cttctcttcg cctcgtgcga tgacctggaa    180
gacacggata ccccttcggg tggcgacggc ggtatgcccg tcgaaaccgg aacagccgaa    240
ctctacatcc tcagcgaagg actcttcaac ctgaacaaca gctcgctggc tttgtattcc    300
ttcaagaaca atcagctgaa caccgactac ttccgcagca tcaaccgacg cggcctggga    360
gataccgcca atgacatggg catttatgga agcaaactct atatcgtggt caatgtatcg    420
```

```
agccagatag aagtggtcga cctgcaaagc ggcaagtctg tcaagcagat acccatgctg    480
tcagaaaacg gaagttcccg gcaaccccgc aacatcgctt tcgacggagg caaggcatac    540
gtgtgttcct tcgacggaac agtggcgcga atagatactg cctctctttc catcgacgca    600
ctgacccggg cgggcagaaa ccctgacggc atctgcgtgc agaacggaaa gctgtatgtt    660
tccaattccg gaggactgga ctgggaaggc atcggggtag accgcacggt ctctgtgatc    720
gacatccctt ctttcaccga aatcaagaag atagaagtag gtcccaatcc gggagatata    780
caggccgggc cggatggcag cgtctatgta gccacgcacg gcgaaaacat agaggcgggt    840
gactatcact tcgtacaaat agacggtcat accgatcaag tggtacggac tttcgacgaa    900
aaggtgttga gcttcaccat tcacgacaac atggcctatc tgtataacta cgactaccgc    960
acccaagatt ctcaaatcaa agtcttcaat ctgaaagccg gaaagacaga gcgggaaaac   1020
ttcatcacag acggcaccac gatacgcact ccttacagca tcagtgtcaa cccttacagt   1080
ggaaacgtct acatcaccga cgcttacgac tataaggtga aaggagatgt gttatgcttt   1140
agtccgcagg gacaacttat atttaagctg cccaatgtgg gaatcaactc caataccgtc   1200
ctgttccgga acaaagcctc ccaaggcaat cctgacgaaa atcccgcaga cgcggaagca   1260
ggcgctttcg ccaataaagt attggagtat aatccggcgc catcacaata tatgaatacc   1320
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ctgctgcagg accgcaccac ctgtctcttc acgctcggag gattcggagg taacattacc   1440
gtgggattcg accataccat ccccaacgtc cccggtgaat atgacttcaa gatatacggc   1500
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ggaatcgtgc ttgtatccaa agacacgaat ggcaacggat tgccggatga tgagtggtac   1620
gaattggcag gaagcgaata taactcgcct gccaccatcc gcaactacga aatcatttac   1680
tacccgtccc cttcggcaga cggggatgtg aaatggaaag acaatcaagg caaagaggga   1740
tacatctaa                                                            1749
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<210> 3251
<211> 1241
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (13),(14)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3251
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actatgcgga tgtgctgacg aactaccaga caacgcgtgc gaatgcccgg atcgtgttac    180
ccggtgccga gtttaccgac acttcggaat tttatctggc caatgtatct ttctcggata    240
cctctgctca accttatgta ctgttgcagc gtattatcag tatgctgaat ttgcgaagag    300
tgtttgtgga tgcacaaacc gctttgaatt ctctgaccaa taatattgtg acgcaagtag    360
ggtataagaa tataatccgg acgacggtac aaggcatttt gcccgggtta ctgaaaacgg    420
caatgaactt ggggccggtt ggtaatcttg tctatgacgt tgttggcgga ctcgatgccg    480
cagtcaatct ggtggtggca gcattggtag aaccggtcgt ggatgcactg tatgcacaac    540
ttttgcaagg gctggtcaat cagataaggc tgactctttc cggtaatgcc acgcagaacg    600
gtgcattggg agcgttgggc gatttactga atccctggcg gggcagtgat gctgcttatg    660
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tctatacggg caatcatcgt ttccggtatg gattcacacc tacacccggt acgacaaata    780
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tactgaacgg agtgtttgtg aatatcacag atccgataca agcaacagtc aatacgaatt    960
accgatatcg ttcgaactat tcgtttgtca gcctggggct gaaatcgtat gcacagcaga   1020
gcgacggaaa ccattcgctg acactctctg tacagttgaa gaatattgct aacctggatg   1080
gtatcttggg aggaattcct gtgctcggtc ctgtgttgaa tggaaccgtt agattattga   1140
ttggcaatat aacggttacc gttccggtga atcttccttt gcttggaacc gataacctga   1200
cgctgtccgg tagctggagt acaccaccgg tacaatatta a                       1241
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<210> 3252
<211> 2109
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<212> DNA
<213> B.fragilis

<400> 3252

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tgttgctgcc aggctcttac cgtttcgctt tccgcccagc agcagaaagc agataccgcc   180
cgtacttatt caatccccga agtaaccgtt gccgaagcat accacaccag cgaagtgaga   240
gccatggctc ccactcaggt gttctctaaa gaagaactca aaagcctcaa cgtattgcaa   300
gtgtcggatg ccgtgaaaca ctttgccgga gttacggtga aagactacgg cggcatcggc   360
ggactgaaaa ccgtttcatt gcggagtctc ggagccgagc ataccgccgt gggatatgac   420
ggaataacga tcagcgactg ccagacggga caaatagaca tcggacgttt ctcactggac   480
aatgtagacc gcctgtcact cagcaacgga caaagcgaca acatctttca gcccgcaagg   540
tttttcgctt ccgccgggat actgaacata cagacactga caccgcaatt caaagacaac   600
cggcgtacca acctgagtgc ctcgttcaaa acgggttcgt ggggactggt caatccgtct   660
ctcctgctcg aacagaaact gagccgtaaa tgggtgctct ccgccaacgg cgaatggatg   720
tcggccgatg gtcattatcc tttcacattg cattatggcg aggacaatga cctgacctcc   780
cgtgagaaac ggaaaaacac ggaagtgaaa aacctccgtg ccgaagcggg attgttcggc   840
aacttctcgg atacggaaca atggcggcta aaggcctatt actatcagtc gtcccgcgga   900
ctgcccaatg ccacgactta ttattacgac tactcttcac agcacctctg ggataagaat   960
gtcttcgtgc aaagccaata caaaaaagaa ttcagccgcc aatgggtctt ccagacttcg  1020
gccaaatgga actggagcta ccaacgttat ctcgaccccg actataaagg ttcggaaggc  1080
aaaacggaga acagttatta ccagcaagag tattaacctct cggcttcggc gctctaccgg  1140
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aacctgaaag atttcgcata tcctacccgt tattcgtggc tgacggcttt tgccggaaaa  1260
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ttgcccagct tcaacgacct gtactacggg caggtgggca acacgaacct gaaaccggaa  1500
agcaccacac aatacaacct gggactgacg tacagccgat cgatcaatga actgatcccc  1560
tacgtatccg tcacggcaga tgcttattat aataaggtga aagacaaaat catcgccatc  1620
cccaccaaga acctctttat atggagcatg gtgaacctcg gcaaagtgga catcaaggga  1680
atagacattg ccggaaacat cagcctgcaa ccctgggaga aactacgggt gaacctttcg  1740
gggaactaca cttatcagcg tgcactggat atgaccgaac cgggagggaa aacctacaag  1800
caacaaatcg cctatactcc ccgtgtatcc ggatcgggac aagccggcat cgagactccg  1860
tgggtgaacc tctcctactc gttcctcttt tcgggcaagc gctatatgct gggacagaac  1920
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cgcatccgta acgtaaacac atccctgaca gtggaagtgc tgaacttgct ggacaagaat  2040
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<210> 3253
<211> 1452
<212> DNA
<213> B.fragilis

<400> 3253

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atttatatat ttaattttg taacatgaaa aaaataaatg ctttaattac taaaatgtgc   120
tttattgcac tttgtgcttt gccaataatc atctcttcat gtaatgacga tgatgataaa   180
tattattatc ctacgaattt cgaaaatctg agtcttccca atgacactat cattgctaaa   240
ggtgaagatt taactttaaa gcctacccta aacctaatta accctaaaat ctattcttgg   300
aaaatagatg gcaaagaggt atccaatgag gttaactaca ctttcagcac ttcggttgga   360
ggaaaacacg agatcatttt cgaagcacaa gactctaaag gaacacgga taaagcccaa    420
ataacagtag atgttttcgc atattacggt ggtttctatg tgattaacga aggatgggca   480
ggtcacgatc cagcctccgt aaattattat aaagatggaa aatggaactt aacattgtt    540
gaatcacttg ccaaacagg aactgttgga gtcattcaag attcatacat gtatatcgta   600
gctaaagatg ctccatatct aacccaaatc gagctggcta acttcaacat caccaaacaa   660
ttaagtacag aaatagaaga acaattagac tacggacaag caaacagttt ctgtacaatt   720
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aatgaaacta caggtatatt gaccgcaagc agaggtgcct ataaaattaa tttaaatcca    780
ttatctatcg gcaatatgct cccacaactc aatagcgagt cagccaacgg gaacggctgt    840
aaagacatct tgaagtcagg cgattatgta ttcgtaaata atatggatac aataaagatc    900
tacaaatctt ccgacctctc tttcgtaaaa aaactaaccg ctttaatgaa aacgggattc    960
gcgcagacaa aagatggaaa tatctgggcc gccaacggcc aatcgttaat aaaaatcgat   1020
cctaaaacgt tggacgaaac cactgttgag ctacctgata atataaatgt gttttataat   1080
caatgggcat atactcctac aggattatgt gcatctacaa ctgaaaatgc attgtatata   1140
gttaatacta ctgtcgtgcc aggtgcttat ggcgatagtt actacggaaa aaacatctac   1200
aaatacaaca cggaaagcaa gattgctcaa gaatttttca aagccccttc caaaatacaa   1260
tcaatatatg gtgcaggcat acaagtgaat cctcaaaatg gagatgtcta tcttatttac   1320
actgaggatg gctatggtgc gcattattta aatactaata tttatgtggc tgatggtcaa   1380
tccggaacac aaaagcaaat aattgactat acaggtaaat attggttccc ttcaagcata   1440
gtttttaaat aa                                                       1452


<210> 3254
<211> 720
<212> DNA
<213> B.fragilis


<400> 3254
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gatgaagaag acctctgtga gattctgaag ttcaatcttg agaacgaagg gtacgaagta    120
gatactgcca actctgcgga agaggccctg aaaatgaata tcagcagcta tcacctgctg    180
ttattggatg tcatgatggg ggaaatttcc ggattcaaaa tggccaatct gctgaaaaag    240
gataaaaaga cagcgcaggt tcccattata ttcatcactg ccaaagatac ggaaaatgac    300
accgtcaccg gattcaacct gggagcggac gactatattt caaagccctt ctccctgcgt    360
gaggtcattg cccgtgtaaa ggccgtgctc cggcgtactg ctacctccga tacggaaaaa    420
gcacccgaac aactttgcta ccagtctctg gtgatcgata ttaccaaaaa gaaagtaagc    480
atcgacggcg aagaagtacc cctgaccaag aaagagttcg aaatcctctt cctgctgtta    540
caaaacaagg gacgcgtctt ctcgcgcgaa gatattctga gccggatctg gagcgacgaa    600
gtctatgtac tggaccgcac catagacgtc aacatcaccc ggttacggaa aaagatcggt    660
acctacggta aacgtatcgt cacccgcctg ggatacggtt attgcttcga aacggaatag    720


<210> 3255
<211> 1203
<212> DNA
<213> B.fragilis


<400> 3255
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ggctttgaga taactgacga gctgggagga aatatttttc cttctgccat tctctcggtg    180
gctacgaccg atgcccaggt cattcaaccg gccgactcca tatatctggg taaccccaag    240
tcgtgcattg ccataaaagt aaaatcacgt tcggcttata gccgtgtgcg gatcgatgtt    300
gcggaaacac cattcttttc acgttcggtg tcggagttcg tgctcaataa gcctcgtacg    360
gaatatacca tttatcccga tatcatttgg aactacgaag cgttgaaaaa caataatcag    420
gcggaaccca tcagtgtggc cgttacggta gagatgaatg gggaagatct gggacagcgt    480
gtacgcactt tttctgtacg gagtgtcaac gagtgtctgt tggggtatgt gactaatggc    540
acaaaatttc acgatacggg gattttcttt gccgcatatg tcaacgaaga gaatccgatg    600
atcgaccagt tgcttcgcga agcattgaac acacggatag tcaatcgctt cctgggctat    660
cagaatccgg ctcccggagc tgtggataaa caggtatatg cattatggaa tgtttttgcag   720
aaacgtaaat ccgttacag ttcggtgtcc aacaccagtc tgtccagcaa tgtggtttat    780
tctcagcgtg tacgtacgtt tgatgacgca ttggagtcat cacagatcaa ctgtgtggac    840
ggcagtgtcc tgtttgcttc cttgctccgt gccatcaata tcgaaccgat tctggtacgt    900
actcccggac acatgtttgt ggggtactat accgacaatt cacataagga tatgaatttt    960
ctggaaacaa cgatgatagg tgatgtcgat ctggacgact cttccccga tgaacaactg   1020
gactccacta tggtaggcaa gtcacagaat caaatgtccc tgctcacctt tgagaagtcg   1080
aaacaatatg ccaataagaa gtataaggaa aacgagaaag gcattcattc cggcaagctg   1140
aactatatgt tcctggagat ttcgaaagat gtacgccgga agatacagcc gataggaaag   1200
```

tga   1203

<210> 3256
<211> 810
<212> DNA
<213> B.fragilis

<400> 3256
cgaaatagaa tcatgaacct gaccaattat catagtcata ccctctattg tgacggccgt   60
gccggcatgg aggatttat ccgttttgcc atcagccggg gatttacgtc ctatggtatt   120
tcttcgcatg ccctctgcc gtttccgact cattggacga tggaatggga tcgtatggac   180
gactatctgg atgaatttac ccggatgaaa gagaaatatg cttcggaaat cgaactggct   240
gtcgggctgg aaatagatta cctgaacgaa gacagtaatc cttccgtccg gcgtttccaa   300
gagttgccgc tcgactaccg tatcggttcg gtacatctgc tttacaatga ccgggatgaa   360
gtagtggata tcgatgtatg tgcagaggtg ttccgggata tcgtcgatca gcatttcggc   420
ggtgatctcg accgtgtgat tcatctgtat tatgaccgtc tgctacgaat ggtcgaactg   480
ggaggctttg atattctggg acacgccgat aagatgcatc acaatgcagc ctgttaccgc   540
cccggtctgt tggacgagtc ttggtacgat gcattgatac acgactattt ctccgctgtt   600
gcagccaaag gatatattgt agagatcaat acaaaagctt tgcatcattt gaatactttc   660
ttcccgaacg aacggtattt cccgttgctg aaggagttgg gagttcgtgt acaggtgaac   720
agtgattcgc attatcccga acggatcaat agcggacgtc ccgaggcagt cttcagcacg   780
gcaaggaagg atcagcggcg gtgtagggaa   810

<210> 3257
<211> 1419
<212> DNA
<213> B.fragilis

<400> 3257
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aacatggaga ataaaaaagg acaacctact acagaggcaa tctttagggg aatacagtca   120
ggaaaagtat tagagctttt tgacaaacta caatatcaga tcgccattca tggtgatctg   180
acttatagtg atccttgggg ggaagtacac cggttcaggg atcaatttga aagtgcgaaa   240
cgcgactcgg attcaccaac tgcgatagggg cgctatccgt ttgccgatgt atggatacaa   300
ttttacgaga tggaagtgaa ggattattcg cttctactgg aaatgtgcct gatggcatcc   360
cattcacgga ctagtgtctg gcgtaaaggt ttcgggacgt tactcgataa attatacgga   420
aaaatacctt tggtggagta cgaacaggca ttggaacatc tggaacaccc ctatgccctg   480
agtgaaattc tctgggcttt ggagtgggac tatcgggacc aggaggtgta tctgaagttt   540
tcacattaca tcctgctcca tcttttgccc ttgcttactc cccggaatat caccttctg   600
tatagcgtgc gcgagtggtt tggttccacc agtgatcatc gtgtcgtgct tgttcattgt   660
tattggatag actgctggct gaagcacccg aaacgtttac tgaccgatga tgaatttacg   720
gccgatttca agatacgtta cgaactctat cgtttgtgta atttcttatc ctataaggaa   780
gagccctatc cgcttgagtt ccctattcgt gctgtcgact tcgggagagc ctgtcagatg   840
gggcttctgt ccgaagatac gttgatggtc gaactgatgg atcgtcccct gtcgcctgtg   900
ttgatagaag aggctgtgga cttttttctat aagaaagacc aaaaggagaa acggctgtat   960
actgattgcc gggattatga tttcagccgt ttcaagaaag tattggaaaa agtaacggaa   1020
cgtatcctcg acatcgagct ggaaagggga gaagcctgta ccgatgtcac ttcgttggct   1080
cggaaactgg acgggggtgac cggagccgaa ctgatgatcc gcttgttgag tctgatgggt   1140
aaggagaaat tcatacggct cgataaatgg tactacgata ccggcgaaag ccgtacaggt   1200
atgttctgtc atctgatgtt acattgcgct ccctcgccga cagatacgcc ggactggttg   1260
aagatgctcg tcgaacgggc gggtatcact ccgaagcgcc tggtggagat ggccgtgtat   1320
tctccccgt tggctggaga tggtagaaga ggctatcgga tggaaaggcc tgacttgtgc   1380
ggcaaatttg ttttatgctt acacaaggga gtgttatga   1419

<210> 3258
<211> 1230
<212> DNA
<213> B.fragilis

<400> 3258

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cctcaaaact cctattttat gagctctact caaaaaaact ttgctctgcc gttagcattt      60
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gtattacaag gttctttagg catcacttca gccgaatctt acctgataat cgctgccact     180
ttcgtacctt tcctcatctt cggctatccg gcttcgatga ctatcaaagc tatcggatac     240
aaacacacca tggcactttc gtttgccatg ttcgctgtag cttttcggttt gtacattcca     300
tcggccagcc aggagagttt tcctcttttt ctggtagcct cttttgtcag cggcacggca     360
aacgcattct tacaagcatc tgttaacccc tatattacta ttctcggccc attggacagt     420
gcagccaaac gtatcagcat catgggcatc tgtaataagt tagcatggcc aattcctcct     480
ttgttcctcg ctttcctgat aggcaaggaa gtgagcgaca ttaccgtatc ggacttattc     540
actccctttt atgttattat tgcagcattt attatattag gcatcatctc actgatggct     600
ccgctgcctg aagtaaaagc agccggcgag gacgacagtg aaggaggtgc cgaggcatgt     660
ccgtatgcag ccagcaaaac ctcagtatgg caatttccgc accttttgct gggatgtctt     720
gccctcttcc tctacgtagg cgtagaaacg gtttcactgg gaaccctcgt tgactatgcc     780
aacagcctgc atttggagaa tgccgcagct tatgcctgga ttgctccgat cggtatcgtg     840
atcggatata tctgcggtat catctttata cccaaataca tcaatcaggc tacagcatta     900
aaaatatgct caatcctcgc cattgccggt tcaattctgg tagtactcac cccggctgac     960
atctcaatct atttcattgc attcatagca ctgggttgct cactgatgtg gcccgcactg    1020
tggccacttg ccatggcaga tttaggtaag ttcaccaaag ccggctcttc tctgttgatt    1080
atggctatgg ccggaggtgc tgtcatccct actctgttcg gctacataaa agacatagcg    1140
ggagcacaaa atgcttattg gatttgtctc ccatgtttcc tcttcattct ttattatgga    1200
atggccggat ataaaatcag aacaaaataa                                      1230
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<210> 3259
<211> 903
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
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37),(138),(139),(141),(142),(143),(145),(147),(148),(152),(153),(154),(156),(157
),(159),(160),(161),(162),(163),(170),(172),(174),(175),(177),(178),(187),(188),
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98),(511),(528),(550),(630),(634),(741),(747),(755),(878)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3259

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gcatatactt ttatctttaa ggttagttat cgttttctct gtactctctg tacgggaagc      60
atagacttta ggagtgctga catgggggtg nnnnnnnncn nnnntnnnnn ngnnannnnn     120
nnnnnnnnnt nnnnnnnnnc nnncncnnct tnnncnncnn nnnccccccn cncnncnncc     180
ctccccnncc ccttcnccct ncncctcccc cccttctct ttctctcttc cttctcnncc      240
ctcttttct tttcccctt cccccccttt ttctncctct tttttttcct ccccttccc       300
ctttcttctc cttttttnn cccctttcct tttctcttcc ttttcnttcc tttctttccn     360
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tccccttctc tccctttntt ccttcttccc ncttctcctt tttttccntt cttccctttt     540
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tctcccttc ctttttttt ctccttttcn cttnccttcc cttttttccc tcttcttttc      660
ttttcccttc ccttcctttt ccttcttctc ttttcctctt tcctttcctc cttcttcttt     720
cccccttcc cctttcctct nccccncctt cttтntcttt ttctcccccct tttctctttt     780
tctttctctc tctttttttct ttcctctctc tcttttttttc tttctttccc ttttttctctt    840
cttctttcct cctccttttc ttttctttct ttctcctntc tcttctttttt cccttctctc     900
ccc                                                                   903
```

<210> 3260

<211> 765
<212> DNA
<213> B.fragilis

<400> 3260

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accctattac cggactcact ggatatcggg aggcagagta cgcaaataac ctttattgaa      60
ataaaaaatt cactatcttt gccgaaaatt ccgcaaatga aatacactgt ttatttattc     120
gactttgact atacactggc agactcttcg cgtggcatcg taacctgctt cagaagcgta     180
ctcgagagac atggctacac cggtatcact gatgatatga tcaaacgcac cattgggaaa     240
acgcttgaag aatcgttcag catccttacg ggaattactg acgccgacca actggaatca     300
ttcagacaag agtattccaa agaggcagat atatacatga atgcaaatac cattctttтc     360
ccggatactc tccccacgct tacacacctg aaaaaacagg gaatccgtat cggaatcatt     420
tcaaccaaat accgattccg gatactgagt ttcctgagaa atcacatgcc ggatgattgg     480
tttgacatca ttatcggagg tgaagatgtg acacatcata aacccgatcc tgaaggtttg     540
ctacttgcca tcgaccgatt gaaggcatgc cccgaagaag tattatacat cggtgacagt     600
acagtggatg caggaacagc cgccgctgcc ggagtttctt ttaccggtgt taccagcggt     660
atgactactg cccaagagtt tcaggcctat ccctacgaca gaatcatcag tactcttggc     720
cagctaatct ccgttccgga agacaaatcc ggctgtccgc tctga                      765
```

<210> 3261
<211> 435
<212> DNA
<213> B.fragilis

<400> 3261

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aagtatatgc ctataaacta tgtagtcagg aagaaaaaag atcagagcgg taatgaagtt      60
aaagagctct actatgccgt gcccagtgcc attcagaaca aaggagtcag tgaaaaacaa     120
ttagcggagg acctgcacga caacagttca ctctcggcag gcgacgtact gtctgtactc     180
gaacaactcc cgaaagccat cgcacgacat atgaaagaag gaagaaccgt cactatccgc     240
ggattgggaa ctttctaccc ggccttaagc agcgagggct gcgaaactcc cgaagaatgt     300
acgcccaaca aagtcagatt gacacgcatt tgcttccggg ccgatactgc gttcacctac     360
gacgtgaaac attgcgaatt cgaaagcatg caactgcgat ttacaaagag gccgaagccc     420
ggtaaggaag agtga                                                       435
```

<210> 3262
<211> 423
<212> DNA
<213> B.fragilis

<400> 3262

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tggcgttggc cggtgaatac gggttggttt atacgagata tgccgatgat cttaccttтt      60
cgggtgatta tttgccgaaa gatgaagttt tggtacgaat ccacaggatt attcgggaag     120
aagggtttca cgatgaacgt caaaaagacc cgcttcttgt ctgaacataa acgtaagatt     180
attacgggag tatcggttag ctcaggcaag aagatgactc tgcctaaagt gaagaagcgg     240
gagattcgta agaatgtgca ctacgtcctg acaaaagggt tggtcggaca tcaggaacat     300
attggttcta ccgatcccgt ttacttgaag cgtttactgg gcagtttgtg ttactggcgt     360
tccatagaac cggacaaccg atatgtatcc gattccatca cagctttgaa gagattaatg     420
tga                                                                    423
```

<210> 3263
<211> 564
<212> DNA
<213> B.fragilis

<400> 3263

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tttgaataca ctgctattga ccccccggtg aagaccattg gttctattcc tattatcatc      60
aatctgaaag agaaagggaa ggacgtaaat gctacgaaag caaccgttat ttcgtttgca     120
ttgatgattg gctttttcta tgcgggtgac tttatgttga aactgtttca tgtagatatt     180
gaatcttttg ctgttgcagg cgcatttgtc attttcctga tgtcactgga aatgatctta     240
```

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gatgtggaaa tttttaagaa tcaggggccg ataaaagagg caacgctggt gcctttagta    300
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gccagtatca atattgtaat tgctttgatc ctgaatatgc tatgggttta ttttgtcgtt    420
agtatgacag ggcgtgtgga gcgttttctg gggaaaggtg gcatctatat tatccgtaag    480
tttttcggta tcattttgtt ggctatttct gtcaggctgt ttactgcaaa tatcacatta    540
ttgattgccg cattgcagaa gtaa                                          564
```

<210> 3264
<211> 1293
<212> DNA
<213> B.fragilis

<400> 3264
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acaggcacga cgggaaacac atcaataaaa gttatgaata taaaaaatcg tttgattatt     60
atgaacttcc tgcaattctt tgtatggggg tcgtggttaa tttcactagg tggctatatg    120
gaaagaggcc tccattttga aggtgggcaa atcggagcca ttttcgcaac aatgggaatc    180
gcatccatta tcatgccggg aataacaggc attatagccg acaaatggtt caatgccgaa    240
cgcctttatg gtatttgcca cttgctggga gccggctgct tgttctacgc ttctaccgcc    300
accgactata atcaaatgta ttgggccatg ttactcaatc taatggttta catgcctact    360
ctttcgctcg ccaatactgt ttcgtacaat gcactcgaac aatataaatg cgatttagta    420
aaagacttcc cgcctatccg tgtatgggga accatcggtt tcatttgtgc tatgtgggca    480
gtggacctta ccggattcaa aaaactcgagt gctcaacttt atgtcggagc aagctcagca    540
ttacttctcg gactgtattc tttcactctg cccccatgcc ccctgcaaa aaatcagagc     600
aaaaccctat tgtcttcttt cggtctagat gccctcagcc tattcaaaag aaaaaagatg    660
gctatctttt tctttttctc gatgttgctg ggtgcagcct tgcaaatcac aaatacatat    720
ggtgatgcat ttttggggag tttcgccaaa atacccgaat ttgcagactc tttcggtgtc    780
aagcactcgg taatcctgct gtccatctca caaatgtccg agacactgtt tatcctggcc    840
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tgggtattcc gattcggact gtttggcttt ggtgatccgg gatcaggcat ctggatgctg    960
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atgacaaacg gattgggcgc tgtcatcgga ggatatgcca gtggagccgt agtggatgca   1140
ttctctgtat atgaaaacgg aatgttggca agtcgcaact ggccggctat ctggttcata   1200
tttgcagcat atgcactggc tatcggtatt ttgtttgcaa ttgtttttcag atacaaacat   1260
caaccgggag aacttaagaa agtgaacaat taa                                 1293
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<210> 3265
<211> 720
<212> DNA
<213> B.fragilis

<400> 3265
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cacagttttg caacagatat ggtaaagatg aatttgtcag aaataaacgt tcccgaacgt     60
attgcagaga tgtgggctcc tctaaacgca gagcaaaggg agttcctggc caataatttc    120
acccttcaaa attacaaaaa gaatgaaaca atttattgtg aaggtgaatc acctacctat    180
ctgatgtgtc tgcttagcgg caaagtaaaa atctataaag acggtgtagg aggcagaagt    240
cagattatac gcatgataaa gcctacagaa tatttcggtt accgagctta ctttgccaaa    300
gaagactatg tgactgccgc ttctgcgttc gaaccttcaa ccatctgcct gattcccatg    360
agtgctatca tgacactggt aagccagaac aatgacctgg gtatgttttt cattcgtcaa    420
ttgtctatcg acctcggtat tgccgatgaa agaaccgtca atttgaccca aaaacacatt    480
cgcggacgct tggccgaatc actgcttttc ctcaaagaaa gctatggact ggaagaagat    540
ggctctacgt taagtatcta tctttcacgc gaggatttgg ctaacctatc gaatatgact    600
acttctaatg ccatccgtac attatccaac ttcgcaaccg aacgactgat caccatcgac    660
ggacgaaaaa tcaagatcat cgacgaggaa aaacttaaga agatcagcaa aataggataa    720
```

<210> 3266
<211> 756
<212> DNA
<213> B.fragilis

<400> 3266

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ccggtccttg cgtcatcgaa ggcgaagaga tggctatgcg aattgccaga aaaaatagta    60
aatatcaccg ataaactggg tattccctat gtatttaaag gttcataccg taaagccaac   120
cgttctcgct tggattcatt catgggaatt ggtgatgaaa aagcgttgaa agttctcgag   180
aaagtacaca ataccttcgg agtgcctacc gtaaccgata ttcacgcagc cgatgaagca   240
gccatggcag ccgattatgt agacatcctg cagatacccg ctttcctctg ccggcaaacg   300
gacttactgg tcgctgctgc tcaaaccgga aaaacgatta atatcaaaaa aggacagttc   360
ctctctccgc ttgccatgca gtttgcagca gacaaggtga tagaggccgg caacaagaac   420
gttatgctga ctgaacgtgg aacaactttc ggttatcagg acctggtcat cgactaccgg   480
ggcataccgg aaatgcaatc tttcggttat ccggtcatcc tagatgtaac tcattcatta   540
cagcaaccca accagacgaa cggtgtaaca ggcggtatgc cgcaattgat cgaaacggta   600
gccaaagccg gcattgccgt aggagccgac ggtctcttta ttgagacaca cgaaaatccg   660
gcagtagcca aaagcgacgg tgccaatatg ttgaaacttg accggttgga aggcttattg   720
actaaactgg tgaaaattag agaagcaatc atgtga                             756
```

<210> 3267
<211> 987
<212> DNA
<213> B.fragilis

<400> 3267

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atgaccatgc cggactatga tctgattgcc attcttggcc ctaccgcttc gggtaaaacc   120
ccttttgctg ccgcattggc cgcagagtta aatactgaaa tcatcagtgc cgattcacgc   180
caaatctatc ggggaatgga tcttggtaca ggcaaagacc tggaagacta cactattaac   240
ggccgacaaa tcccttacca cctgatagat attgctgatc cgggctataa atacaatgta   300
tttgagtatc aacgtgattt cctgacagct tacgagacta ttaaacaaaa aggatgtctc .  360
cccgttctat gtggagggac aggcttgtat ctggagtcgg tactaaaagg ctatcgcctg   420
attccagttc ccgaaaacca agagttgcgt gtacgcctgg ccgaaaaatc attggaagaa   480
ctgactgcta ttttaagcag ttataagaca cttcacaatt cgacagacgt ggataccgtc   540
aaacgggcaa tccgtgctat cgaaatagaa gagtattatg caaagacacc aatagaagaa   600
cgggagttcc cacaactgaa cagcctgatt atcggagtgg acatcgaccg tgaattgcga   660
cgggagaaaa tcacccgccg ccttaaacaa agactggacg acgggatggt tgaagaggta   720
cgtcgtctcc tggcagaggg aattcagccg gatgatctga tttattatgg attggaatac   780
aaatacctga ctttgtacgc cattggcaaa atgacatacg atgaaatgtt taccggtctg   840
gaaactgcca tccaccagtt tgccaaacgg caaatgacct ggtttcgggg aatggaacga   900
agaggtttca ccattcattg ggtagatgct tcactcccaa tggaggaaaa gattaacttt   960
gtaaagcaga aactcaaaga gtttttag                                      987
```

<210> 3268
<211> 2832
<212> DNA
<213> B.fragilis

<400> 3268

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aacagtatag caatgaaaca tttattccgt ggtttacttt tggttgcagt catcttatgc    60
tgcaacttcc aacaggcctt tgcacagcaa atgccgccca tccctatcga caagaacgta   120
cgtattggaa agttggacaa tggtctgacc tactacatcc gtaagaacaa tctgcctgcc   180
aaccgggctg acttctacat tgcccagaaa gtgggttcta ttcaagaaga agaaaatcaa   240
cgcggattgg cacacttcct ggaacacatg tgttttaatg ggacaactca cttccccggt   300
gatgccttga agcaatatct ggagcgtatc ggcgttaaat tcggtgaaaa cctgaacgca   360
tatacggcta tcgatgaaac ggtttacaat atctccaatg tacccgtcaa aactcccggt   420
gcagtagact cctgcctgct gattctacac gactggagca atgacctgac actcgatccg   480
aaagagattg ataaagaacg cggcgtcatc aatgaagaat ggcgtacacg catgagtgcc   540
atgatgcgta tgcaagagaa gcttctgcca atgatgtatc cgggtgacaa atacgcccat   600
agcttcccca tcggcaccat ggacgtagtg atgaattta agccgcaaac cttgagagac   660
tattacgaaa aatggtatcg tcccgactta cagggaatcg tcatcgtcgg tgatatcgat   720
gtagatgccg tagaagctaa aatcaaaaca atgtttgccg acatccctgc acagcctaat   780
```

```
gcggcagaac gtatctacta tcccgtcgca gacaataaag aaccgattat ctgtatcttg      840
aaagacaagg aacagcctca tgtccaagtt ctactcttca ataaacacga agcagttccc      900
gataaccaga aaggaaatgt ggactatctg atacagcaat acgccaagaa tctgatcagc      960
attatgctga atgcacgttt gaacgaactg gttcagacag ccaatccacc ctatatttat     1020
gcaggagcag acgatagcaa cttctttgtt gccaaaacca aagatgcatt tctggggatc     1080
gtggtttgca aagaggacag catcgaaaat ggtatcgccg ccatgctccg cgaattagaa     1140
cgtgcccgcc aattcggctt caccgaaaca gaatacaatc gtgcccgtgc cgaatacttg     1200
cgtcagttgg aatcttctta caatgaacgt gacaaacaga aaaacgaaaa gtatgtaaat     1260
gaatatgtcc gccactttct tgataacgaa cctataccgg gcatagagaa cgaatataca     1320
atcatcaacc agatcgcccc caatattccg gtggcagcaa tcaaccaatt gatgaaagga     1380
ctgattacag acgacaatca ggcgctggcc cttttcgcac ccgaaaaaga ggatctgaaa     1440
ctaccatccg aagccgctat cgcaaaactg ctgaaggatg caaaaaccga aaagctgact     1500
gcctacgtag ataaagtatc agacgaaccc ttaatggctg aagcgccgaa aggtggtaag     1560
attgtttcgg aatcaaaaga cgacatcttt ggagcaacta ctttgaccct ttctaacgga     1620
gtaaaagtga ttataaagaa aactgatttc aaggcagatg aaatccggat gaaaggtgtc     1680
agcctgggag gtagttccgt attcccggat tcggaaatca tcaatataaa tggtctggat     1740
gcagtcggag tcggtggttt gggtaacttc agtgctgtaa accttgaaaa agtgctcgcc     1800
ggaaagaaag catcggttag ttacgatatc gcaaacaaga ccgaaagcgt ttcaggaagt     1860
tgttcaccca aagatttcga aacgatgatg caactcactt accttacatt tacagcaccg     1920
cgtagagacg atgatgcatt tgcttcatat aaaaatcgta ataaagccgc attaaagaat     1980
caggaattga atccgaatgt ggccttcagc gactctatcc aagccggcat ctatatgaaa     2040
cacccgagaa tcatacgcat aaaagccgac atggtggatc aaatggatta cgacaaaatt     2100
ctgtctatgt atcaggatcg cttcaaagat gcaagtgact tcacatttat ctttgtcggt     2160
aacgtagatg tagagaagat gaaaccggta attgccgaat atctgggtgc gctccccgcc     2220
gttaaccgca aagaaacttt caaagataac aaaattgaaa tgcgtcaagg catttacaag     2280
aacgagttta ccaagcagca agagacaccg aaagcttccg ttttcgcttt ctacaacgga     2340
gattgcaaat atgacctgag aaacaacctc ttgcttagca tgacaagcca gattctggat     2400
ttggtctaca cagaaaaagt acgtgaagac gaaggaggta catatggtgt atatgtaggc     2460
ggaacgctac aaaaatatcc aaaagaaaaa gcaatcctgc aaatcatctt cgatacggct     2520
cccgaaaaga aagagaagct gatgaagatc attttcggag aaatcgataa tataacgaaa     2580
acaggcccgt cggaagccaa cttgaacaaa gtgaaagaat atatgctgaa aaagcatacc     2640
gaagacctga agaaaacag ctactggctg ggaagtatcg acgaatactt atataccggc     2700
atgaaccgca tgaatgatta tgaaaagata gtcaatagca ttacggtgaa tgacatccgg     2760
aaattcgctg acgacctctt caaacagaaa aatgaagtgg aagtgacaat ggtcagcccg     2820
gaaaagaaat aa                                                          2832
```

<210> 3269
<211> 276
<212> DNA
<213> B.fragilis

<400> 3269

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gaagaaatgg cacataagaa aggtgtcggt agttctaaga acggccgcga atcacagagc       60
aaaagattag gcgttaagat atttggtggc gaagcttgca aagcaggtaa catcatcgtt      120
cgtcaaagag gtactgaatt ccacccgggt gaaaacatcg gtatgggtaa ggaccacact      180
cttttcgctt tagtagatgg aactgtaaac ttcaaagtag gtagagaaga cagaagatat      240
gtttctatca tccctgctga agcaacagaa gcataa                                276
```

<210> 3270
<211> 1113
<212> DNA
<213> B.fragilis

<400> 3270

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aatatagggg caggaatatg tacttttgtt ccccgaaagg aagaagaagc aatgaaaaac       60
aggaaacgaa tcatacggta ctctgtttta gggactttaa tagcccttgt ctggctcact      120
cagatgctcc cggcattggg cgaagggtat gcccgtacgg cctatccggt catttcatat      180
atcttgtccg gttttcgaa cattatcccc tttgcattgg gtgacttatt tatagcactg      240
agcattggag gaatgatcgc ctatccgttt tatgcacgaa tccgactgaa attaagctgg      300
```

```
aaaaaaatac tgagaaggga tgtggaatat ttgctatgga tctatgtttg gttctatctg    360
gcatggggac tcaactattc acaaaagaat ttttatgaac gaaccggaat tccatatact    420
gcctacactc ccgagatttt caatgaattt gtagacaact atatctcaaa actgaacgaa    480
tcgtatgtgc cggtcaatcg gatcgataaa gaagtaatcc gcaaagaggc agtccgacaa    540
tataacctga tcagtgatac actaggtata caccgtccca cacactcccg tcctcgggta    600
aaaaccatga tgttcactcc attgatttcg atggtgggcg tgacgggtag catgggacct    660
ttcttctgtg agttcacact gaacggagac ctgcttcccc cacaatatcc ggcaacctat    720
actcatgagc tggcacattt gctaggtatc accagcgaag cggaagcaaa cttttatgca    780
tatcaggtct gcacccgctc cgtaaataaa gaaatccgtt tcagcggtta ttttctatt    840
ttaggccatg tacttgccaa tgcccgccaa ttgatgacag aagaggaata taaaaagtta    900
ttcggcagta tacgtccgga aatcattgag ctggccagaa aagaccagga atactggatg    960
gcaaagtata gtccgcttat aggtgatatt caggactgga tatatgattt gtatctgaaa   1020
gggaacaaaa tagaaagtgg acgtaagaac tattcggaag tgatcggtct gctgatttca   1080
tataatgaat ggaaaaaaga atcaaataaa taa                                 1113
```

<210> 3271
<211> 1023
<212> DNA
<213> B.fragilis

<400> 3271
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accataattt accatataaa gaagaaatat cgtaaattaa tgcaaaagaa gacgaaggag     60
agtcctaagc aacaggacga tttatcactg aaaaacaagc acttaacaat tcataaggaa    120
ttataccgcc agagaacttg ctttaatgcc cgtttttttt tatatctttg cagaatattt    180
acgagaacga ttgttattat gacaaaggct aacaaggttt tatttattac acaagagatt    240
actccttacg tttcagaatc cgagatggcc aatataggca gacatctacc acaagctatc    300
caggaaaaag gcagagaaat cagaacattt atgcccaaat gggggaatat caacgaacgc    360
agaaatcaat tgcacgaagt gatacgtctt tccggcatga acctgatcat cgacgacacc    420
gaccatccac ttattatcaa agtagcttct atccagtcag cacgtatgca ggtttatttc    480
atcgataacg atgattattt tcagaaccgg ctgcagacag ctgatgaaaa tggggttgaa    540
tacgatgata atgatagccg ggctatcttc tatgccagag gagtgctgga aacggtaaag    600
aaattgcgtt ggtgtccgga cgttattcac tgtcatggct ggatgacggc attagcccct    660
ttgtatataa agaaagcgta taaagacgaa ccttcgttcc gcgatgcaaa agtagtattc    720
tccgtatacg aagatgattt caaaggtaca ttcaccaatg ctttggcaag caacctgatg    780
ttaaagggta ttaataaaaa agatgtagct accctgaaag atccggtaga ttatgttaca    840
ctttgcaaat tagctgtcga ttactcggac ggaatagtac agaatagtga acatgtaaat    900
gaagatgtca tgaactacgc gcgtcaatcg ggcaaattgg ttcttgacta tcaagctccc    960
gatgctcttg cagatgcttg caacagtttc tacgatcaag tgtgggaagc tgaacaaaaa   1020
taa                                                                  1023
```

<210> 3272
<211> 267
<212> DNA
<213> B.fragilis

<400> 3272
```
gttttcctcc ataataatct taaagcctgt tatttcgata acgaaggtgt ggcaaccgaa     60
ctttgtccgg tatttgaggg gacgatttca gcggactcta aaaccttttg tacgcttctc    120
atacgaaaaa tgaatttcga tcttccatct tccactcttc gttttagtag agaacgtaaa    180
cgtaacggtt tgacatatgg tgtgatgtat ctgttatctt atttgtttat gcctataaaa    240
gcattttgtt ttccttcgta tctttag                                        267
```

<210> 3273
<211> 588
<212> DNA
<213> B.fragilis

<400> 3273
```
gaaagtgaac aattaacaat ggataagaaa gtagaattac aggtattgaa catttctaac     60
```

```
agccaggcgc aggtaggtgc ctatgcaatg gtattgggag aagtagatgg cgaacggcag    120
ctacctatta taataggacc tgccgaggca caagctacag ccatttgcct gaaaggaata    180
aaggccccac gcccgctgac acacgattta ttctattcgt gtctgaatgt tttgggagca    240
actctgctcc gggtactaat atacaaagcc aaagaaggcg ttttctattc gtatatctac    300
tttaaaaaag acgaagaaat tattcggata gatgcccgta cctcggatgc agtggcactg    360
gccgtcaggg cagattgtcc tatctttata tacgaatcta ttcttgaacg cgagtgtata    420
cggttgacag acggggacga acgtcccgat actccggaag aggatgaaaa ctcacgcacg    480
gagccggtca gcattatttc tcttgaagaa gcattgaata aagccattca agaagagaat    540
tacgaactgg cagcccgact tcgtgacgaa ataaaccgac ataaataa    588
```

<210> 3274
<211> 1197
<212> DNA
<213> B.fragilis

<400> 3274

```
aaacaacata ataaatttat gcataaagta tatcttaaac ccggcaaaga agactcattg    60
aaacggttcc acccctggat tttttctggt gccatcgccc acttcgacgg cgaacccgag    120
gaaggtgaag tagtggaagt gtacacctca aaaaagaat ttattgccaa agggcatttc    180
cagatcggaa gtattgctgt acgtgtactt tcgttcaaac aagaagagat taaccacgat    240
ttctggaaac acaaattgga agtggcctac gacatgcgac gcagtattgg catcgctacc    300
aatccgacta acaataccta tcgcctggta catggagaag gcgataatct gcccggactc    360
gttatcgatg tttatgcccg gactgctgtg atgcaggcac attctgcagg aatgcatgta    420
gaccgtatgg ccattgccga agctttgtcc gaagttatgg gtgatcagat tgaaaatatc    480
tattataaat cagaaacgac cctcccattt aaagcggacc ttttcccgga aacggtttc    540
cttaaaggag gaagcagcga caacatcgct caggaatatg ggctgaaatt ccatgtagac    600
tggctgaagg gacaaaaaac aggatttttt gtagaccagc gtgagaatcg tgctctactg    660
gagcgttatg ccaaggggcg gtcggtatta aatatgttct gttataccgg aggcttttcc    720
ttttacgcca tgcgtggagg tgccaaacag gtgcactcgg tagacagttc tgcaaaagcc    780
atcgatctga ctaataaaaa tgtagaatta aacttcccgg gagatacccg tcatgcagcc    840
tttgctgaag atgctttcaa atatctcgac cgtatgggtg accagtacga cttgatcatt    900
cttgatcctc cggcatttgc caaacataag gatgcgctgc gcaatgccct tcagggctac    960
cgcaagctca atgccaaagc atttgagaaa atcaaaccgg gtggtatctt attcaccttc    1020
tcatgttcgc aagtagtgac caaagataat ttccgtactg ctgtatttac tgctgccgcc    1080
atgtcgggca gaagtgtacg tatactacat cagttgaccc agcccgcaga ccatccggtg    1140
aacatctatc acccggaagg ggaatatctc aaaggattgg tgctctatgt agaataa    1197
```

<210> 3275
<211> 2292
<212> DNA
<213> B.fragilis

<400> 3275

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ataatgaaca aaatcattag caaagaacac ttttcggaga aagtattcaa acttgtcatt    60
gaagctccgt tgatagcaaa atcacgcaaa gcaggtcatt tcgtgattgt gcgtgtcggt    120
gaaaagggag aacggatgcc actgaccatt gcagccgccg acccgaaggc aggaacgatc    180
accctggttg ttcaggaagt agggctctct tctacccgcc tttgcgaact aaacgaagga    240
gactatatca ccgacgtagt aggtccattg ggacaagcta cccacattga aaacttcgga    300
acagtagtat gtgccggagg tggcgtaggt gtagctccga tgctacccat cgtacaggcc    360
ctgaaggcag ccggaaaccg tgtgatcacc gtactggcag gacgtagcaa agaactgatc    420
attcttgaaa aagaaatgcg tgaaagttcg gacgaagtga ttataatgac cgatgacgga    480
tcatacggtc gcaaaggctt ggttaccgaa ggagtagaag aagtaatcaa acgggagaaa    540
gtgaacaaat gttttgctat cggcccagct atcatgatga aatttgtttg tttgctgacg    600
aagaaatatg aaattccgac agaagtatca ttaaatacaa ttatggtgga tggcaccgga    660
atgtgcggcg cctgccgtat tactatcgga ggaaagacca aattcgtatg tgtcgacggt    720
ccggaatttg acggtcacca agtggacttc gatgaaatgt tgaagcgcat gggagctttc    780
aaaaccatcg aacgtgaaga gttgcataaa ctcgatgaat gtgaagcaac caaagtcata    840
gacgaaaacg gacgtacagc cccttggcgc gaagcactcc gtaaagctat caaagctaaa    900
gaccgtgcga acattgaacg ctgccaaatg aacgaactcg atccggagta ccggtcacac    960
```

```
agccgtaaag aagaagtcaa tcaagggctg actaaagagc aggcagttac ggaggcacag    1020
cgctgtctgg attgtgccaa cccaggctgc atgacaggtt gcccggtagg catcgacatt    1080
ccccgtttca tcaagaacat agaacgtgga gaattccttg aagcagccaa aacactgaaa    1140
gagaccagtg ccctgcctgc cgtatgcggt cgtgtatgtc cgcaggaaaa acaatgcgaa    1200
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aacggtatca aagtggctgt tatcggttcc ggtcctgccg gactatcctt tgcaggggat    1380
atggccaaat atggatatga tgtaacggta ttcgaggcgc tacatgaaat tggcggtgta    1440
ctgaaatatg gtattcccga attccgtcta cccaacaaaa tagtagacgt cgagattgag    1500
aaccttgcca aaatgggagt tacattcatc aaagactgca ttgtagggaa aacgatcagc    1560
gtagaacagt tggaagaaga aggtttttaag ggaatttttg tagcctcagg agccggactt    1620
cccaacttta tgaacatccc gggtgagaac tcgatcaaca tcatgtcttc caacgaatat    1680
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aaacgtcttg gagccgaacg ggctatgatc atctatcgcc gttcagaaga agaaatgcca    1860
gcacgtctgg aagaagtgaa acatgccaaa gaagaaggta tagagttcct gaccttacac    1920
aacccaatcg aatatttggc agacgagcaa ggacgtgtca aacaagtaat cttgcaaaag    1980
atggaattgg gtgaaccgga tgcctccgga cgacgtagcc ccgtccccat cccaggagca    2040
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gtccccagtt ctatcaaagg tctggaattg ggccgtaaag gaacaatcac tgttaacgat    2160
cagatgcaat cgtctattcc cactatttat gcgggaggag atattgtacg cggaggagct    2220
actgtcatcc ttgccatggg agacggacgc cgtgccgcag cagcaatgaa cgaacaattg    2280
agttccaagt ag                                                        2292
```

```
<210> 3276
<211> 1524
<212> DNA
<213> B.fragilis

<400> 3276
acaaaaataa ataagaacct agatacgacg atcatgaaag caaaatatgt atgggtagca     60
ctgcttgcct tgactttctt cggatgcgat gataatacag gtactatcgg atgggatatg    120
cttccggata gcgaccaaaa tatcaatgga agatatacga cttacgagtt aactacgaat    180
tccgacctat caggtcctgt ttttgccaaa accagcgtag gttatgtggg aaaattcact    240
gataaagaat tcggagaata cgaagccagt ttcctcgcac agttgaatag tccggatgga    300
atttcttttc cttcggtcta cgatccggaa actaatccca aggggtaat ggcaggagac     360
tctattcaca ccgctgaatt gatcttatac tataaaagtt attttggaga ctctatcaat    420
ccatgccgaa tgactgttta tgaactggac gaaaacttga cccagaacta ttatacagac    480
atcgatccat tgaagtatta caatccaaac aacttactcg cacgaaaagc ctacacagct    540
gttgaccaat cactcagcga ttccatcaga aactcagatg acttttatcc taatgtccgt    600
ctaacttctg aagagatcac gaaactaggt aaacgtatct atcgtttgaa cagagatcac    660
cctgaatatt ttaaaacttc ggaagcattt attaataacg tattcaaagg tatttatgcc    720
aagaatgact atggtaacgg aacgattctt tatgttgacc agatcaacct gaatgttgta    780
atccgatgcc acgaaaaaga cagcttggga aataatctga gaaaaaaaa tggtgctgac     840
tctttatact acacaacccg tactttcgct caaccaagg aagtaattca agccaataag     900
tttgttaatt ctgaaaaact aaacgaaatc gctaaaaaga cagactgtac ttatttgaag    960
tctccggccg gtatcttcac acaagctaca ttgccgatca ataagattta tgaagaatta   1020
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gggaaattta gtatgaaagc acctacatat gtgttacttt tacgtgagaa agaacggcaa   1140
agtttcttcg aagagaacaa acttacagat aacatcactt cttatctggc cgtacacaat   1200
gctattattt ccaataaacc tacaaccaat cagtatgtgt ttaccaactt gactcgcttg   1260
attaatgcat gtgtcaacga aaagcaggaa gccaagaaaa agcaggaga cagttggaac    1320
gaagcagctt gggaagcagc aaatccggat tggaataaag tggtacttat cccggtactg   1380
gtacagtacg atagctcttc caataagaat atgatcagca tccagcacga tctacaaccg   1440
ggatacgtaa aactggaagg tggtccggac ggtacgaaac tgaagttaga agtaacttat   1500
accaacttca acggtaagca gtaa                                          1524

<210> 3277
<211> 918
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<212> DNA
<213> B.fragilis

<400> 3277
aagatggaaa aatttgaatt acatatattg ggttgcgggt ccgcattgcc tactacccgg   60
cattttgcta cctcacaggt agttaatttg cgtgataaac tttttatgat cgattgtgga   120
gaaagagcac aaatgcaatt gcgtaaatca cggttgaaat tctcacggtt gaatcatatc   180
tttatctcgc atctgcatgg tgaccattgc ttcggattga tgggacttat ttccactttc   240
gggttactgg gacgtacagc tgaattacac attcattctc caaaaggatt ggaggagttg   300
ttgactccca tgctcaattt cttttgccat acattggcct ataaagtcat ttttcatgaa   360
ttcgatacca gacagacttc agtggtttac gaagatcgtt cgatgacggt cactactatt   420
ccgcttcagc accgtattcc ttgttgtggc tttctgtttg ccgaaaaagc acgccctaat   480
catattatac gtgatatggt cgatttttat aaggtgcctg tttacgaact aaaccggata   540
aagaatggat ctgattacgt gactcccgag ggagaagtga ttgccaatac acgtttgacc   600
cggccttcgg atcctcccag aaagtatgcc tattgttccg atacgatttt taggccggaa   660
atagtggaac aactttccgg tgtcgactta ctttttcatg aagcgacctt tgccgaatca   720
gagttggcac gtgccaaaga aacctatcat actacagctg ctcaggcggc acggatagct   780
ttggaggccg gggtacgcca gttggtaatc ggtcactttt ctgcccgtta cgaagacgag   840
agtattttgc tgaaagaagc ttcggcggta ttcccgaata cgattctggc aaaagaaaat   900
ttgtgtataa gtctttaa   918

<210> 3278
<211> 480
<212> DNA
<213> B.fragilis

<400> 3278
agcgaaatga agaaactgat tattctattg attatagttt gtggctttac ccctgcgctg   60
cgtgctgtgg gaagtcctaa tcaacatttg tcacccaaag aattcagggc caaacaacaa   120
gcatttataa cagaaaaagc tggcctgact caagaagagg ctgcgaagtt ttttccggtt   180
tattttgaac tgcaggatcg gaaaaagcaa ttgaatgacg aagcatggaa attgcttcgt   240
agcggtaaag atgaaaagac taccgacact caatacggag aaatcctgga aggagtttat   300
gatgcccgta tcgcttcgga tcggctggat aagacttatt ttgagaagtt taagaaaatc   360
ctttcgtgca agaaaattta tctggtgcaa agagccgaga tgcgtttcca ccgcgaactg   420
ctgaaaggag tacgtgataa taaaggtgga aacgaacgtc cacagggaaa gaggaaatag   480

<210> 3279
<211> 699
<212> DNA
<213> B.fragilis

<400> 3279
aatttaaaga aatatgctaa tatgaggcca gaaattcgac aaatcctgct gacaatggta   60
cttccgctgt ttctaatttt tatcctctac atgataaagg ttttagagat aggtatggac   120
tgggacttta tcagtttagg agtatacccct ttgtcaaaaa aaggtatgtt tggtattttc   180
actcatcctc ttatacatag cagcttcaaa catttattga ccaacacttt accactattc   240
ttcctttcat ggtgtctttt ttacttttac agaagcatag ctccctctat ttttcttata   300
atctggatag gatgtggagc cattacattc cttatcggca gcctgcctg gcatatcggt   360
gccagcggta ttatctatgg actggctttc tttcttttct tcagcggact gttacgaaaa   420
tatatccect tgattgccat atctctatta gttacctttc tctatggagg tcttatatgg   480
aatatgctcc cctattttac accatccggc atttcgtggg aagggcattt aagcggagct   540
atcataggta ccatctgtgc ttttttcttt atgggttacg gcccgcaaaa gccggaccct   600
ttcgcaaatg aacaagaaga ggaatccgtc tcagcaacag atgaaacaga taatatcgaa   660
atggataaag aagaagaaca cgaaatcgat gcagaatag   699

<210> 3280
<211> 791
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(26),(149),(157),(163),(270),(274),(354),(376),(393),(406),(465),(512),(543),(54
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752),(756),(757),(759),(761),(762),(763),(765),(766),(767),(768),(769),(770),(77
1),(772),(773),(775),(776),(777),(778),(779),(780),(781),(782),(783),(784),(785)
,(786),(787),(788),(790),(791)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3280

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ggggagagaa gggaaaaaga agaganagga gaaagaaaga aaagaaaagg aggaggaaag      60
aagaagagaa aaagggaaag aaagaaaaaa agagagagag gaaagaaaaa agagagagaa     120
agaaaaagag aaaaggggga gaaaaagana aagaagnggg ggnagaggaa aggggaaagg     180
gggaaagaag aaggaggaaa ggaaagagga aaagagaaga aggaaaagga agggaaggga     240
aaagaaaaga agagggaaaa aagggaaggn aagngaaaag gagaaaaaaa aaggaaaggg     300
agagaggaaa aaaagaaaaa ggggaaaaa aggaaaaaaa aagaaagaag aagngaaagg     360
aagaaaaggg aagaanggaa aaaaaggaga agnggaaga aggaanaaag ggagagaagg     420
ggagggagag ggaaagagag gagggaagag aaaaaggaag aaggnggagg gataaggaga     480
aaaaggagag gaaaggaagg aaggaaggga anagaaaggg aagaaggaga aaaggagggg     540
aannggaaag aaaggaanga aaaggaagag aaaaggaaag gggnnaaaaa aaggagaaga     600
aagggggaaag gggaggaaaa aaaagaggna gaaaaagggg gggaaggggga aaaagaaaaa     660
gagggnngag aaggaagaga gaaagagaag gggggggagg ngnagggnga aggggnnggg     720
gagggnngnn gngngggggg nnnnngnngn nnaagnngng nnngnnnnnn nnnannnnnn     780
nnnnnnnntn n                                                        791
```

<210> 3281
<211> 1221
<212> DNA
<213> B.fragilis

<400> 3281

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cagaatattg aaattatgaa caacttagtc tggaagctgc tccgtcagca tatcagcatc      60
ggtcagttga ccggtttctt cttttgccaac ctttttcggaa tggttattgt gctactcagc     120
gcacaattct acaaagatgt agttcccatc tttaccgaag gggatagctt tatgaagaaa     180
gattatatga cagctactaa gaaaatcagt acgctgggat cttttgcggg caagagtaac     240
acttttttcgt ctgaggaaat agaggaactg aagaaacaac cgttcacccg gagcgtaggt     300
gctttcactc cttcgcaatt taaagtctcc gcaggattgg gaatgcagga agcaggaatt     360
cacctttcta ccgaaatgtt ctttgaggcc gttcctgata agtttgtaga cgtcagcctc     420
gataaatggc attttgatga aaacacgcac accatcccta tcatcattcc gcgcaattat     480
ctgaatttat ataacttcgg atttgcccag agccgaagcc tgcctaaact atcggaaggg     540
ttgatgagcc tgatccaaat ggatattctg atgcggggca acggacgggt tgagcaatat     600
aaaggaaaca tcgtcggctt ttccaaccgg ttgaatacta ttttggttcc acaatctttt     660
atgaactggg ctaaccaaaa ctttgcaccg gatagccagc cggacccttc acggctgatt     720
attgaagtag acaatcccgc tgatgcctcc attgcaaagt atttccaaca aaagggttat     780
gagacagaag acggaaaact ggacgccggg aaaaccactt attttctgcg tctgattgtg     840
ggtattgtcc ttgcagtggg actatttatc agcatactct ctttctacat tctgatgctc     900
agcatttttc tgctttaca aaagaacacc gtgaaactgg aaagtttact tctgataggt     960
tacagccctt caagagtagc actcccctat cagattctta cattaggact caatattgtt    1020
gtactgttac tatccgtcgg cattgtttcg tgggcacgca cctcttatct tacgacactg    1080
aacctgttgt ttccacaaat gtctgtcgga tctctctggc caactttcgc cataggtata    1140
tttttattct tattggtgtc ttccatcaac gttattatac tgaaaaagaa gatgttgtca    1200
atatggatac acaaagcata g                                             1221
```

<210> 3282
<211> 1170
<212> DNA

<213> B.fragilis

<400> 3282

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acaataactg aaatgaaaca aacaaaaacg attttagcag tcattctgtt ggtggtatta    60
gtggggtgtg gagaaaatat acagtcaaac aatgatttaa tcattgttga cgtttcgaaa   120
agttatccta aaaaagaatt gattcttcag gactttatgg atgtagaata tgttgcgttg   180
gagaccactg acgagtttct tacacaaggt ctggtgcagg atgtgggaaa agaatacata   240
ttggcaacaa ataggaataa tgatggggat attttyattt ttgacagaaa aaccggtaag   300
ggagtgagga agataaatcg tcggggcaa ggagcagaag aatatgcgag gattaatgag   360
attattcttg atgaaaacaa tggtgaaata ttcgtaaagt caccgggaaa taaaatctta   420
gtgtatgatc tttatggaaa gttcaaacgg tgtttgagtc ttgatcggga agtttcatct   480
attttcgatt atgacaaaga taatttgatt tgctatgata tgtcagatta tcacagtaaa   540
ggagaggata gaaccaaatc ataccatatt atcctatcaa aacaggatgg aagtatcacc   600
cgtgatattt ttattccttt caaaacgatt gatacaccaa ttgtgaatga tggagatagg   660
tttatagcaa attattctta tcagatacgc ctgagtaacg ggaaatgtac acttatggat   720
acatcggctg atacattgta taactatgcg tcggatggta cattaagtcc ttttgttgta   780
agaactcctt ctgcacatac catggaaccg gaagtttttc tttatatggg tatccatacc   840
gaccgttatt actttatgga agccgttaaa aatgtattta actttgaaaa gggcaacgga   900
ttctatgctg atgaactggt gtatgacaaa gaagaaaagg cggtatttca agttaccata   960
tacaatgatg actatgtgga caaaagaaca gtggctatga cagcgaaacc aattaatcgt  1020
gaaattgaag acgtcacaag tctaaatgca gcccgacttg ttgaaattta taagaaagac  1080
caactgaaag atggtaaatt gaaagaaata gcctctaggt tgaatgaaga agataatccg  1140
gtgattatgt tagtaaaaca aaaaaaataa                                    1170
```

<210> 3283
<211> 531
<212> DNA
<213> B.fragilis

<400> 3283

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aagaagaatg aatgtatgaa gaaatacctt tttaatctgt tacttttcac cgtcctagtt    60
atcggcctga gtggctgccg cacctctgct cccaaactag actataagaa attggcccgt   120
gcttctgtac gcttgggcgt agacatcgga atggaggata accataaact ctacctggaa   180
gcagccgaat ggataggtac cccctaccgg ggaggcggag agaccaaacg tggcacagac   240
tgctcgggaa tgacctgcca gatttataaa aaggtatatc atatcaaact gcaacgaagc   300
acagacggtc agaagaaaga gagcagtaaa gttgcccggc gaaatcttcg ggaaggtgat   360
ctggtatttt tcagtagccg gaaatcgcgc agaaaagtgg cacacgtggg catctatctc   420
aaagacggaa agtttgttca tgccagcacc agccagggag tcattgtcag cagtctcaat   480
gaaccctatt accggactca ctggatatcg ggaggcagag tacgcaaata a             531
```

<210> 3284
<211> 1401
<212> DNA
<213> B.fragilis

<400> 3284

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aacaatatag atatgagaac aatctgtctt tattttgaga tacatcaaat tattcatctg    60
aaacgttacc gcttcttcga cattggtgcc gaccattatt actatgatga ttatgccaat   120
gagacaggta ttaatgaggt tgccgaacgt tcttatattc cggctctcaa tacattgatt   180
gaaatggtga agaattccgg aggagcattt aaagtagccc tttctatttc gggagtagca   240
ttggaacagc tcgaaattca tgcacctgcc gtaattgacc tgttacatat attaaacgat   300
acgggttgct gtgaattcct ggcagagcca tactctcatg cttatcatc attggccaat   360
gaagactgtt ccgtgaaga ggtaatgcgt cagagcgaaa agatgaaaca gatgtttggt   420
aaagctccga aagtgttccg taactccagc ttgatttatt cggatgaaat aggtgctacg   480
gtggctagca tgggtttcaa aggcatgctg accgaaggtg ctaaacacgt tttgggttgg   540
aagagtccgc attacgtgta tcattgcaat caggctccaa gtctgaaatt gttattaaga   600
gacttcaagt tatcggatga tatcagtttg cgcttctcta actctgattg gagtgagtat   660
cctttatttg ccgataagtt tatcggttgg attgatgctt taccacaaga agaacaagtg   720
atcaatatct ttatggaact gaaagcattg ggtatggcgc agccattatc atccaatatt   780
```

```
ttggagttct tgaaggcact tccttattgt gcaaaagaaa agggcattac tttctctacc    840
ccatcggaga ttatttcgaa attgaaatct gtttcccaat tggatgtacc atatccaatg    900
tcgtgggtag acgaagaaag agatacgagc agctggctgg gtaatgtttt gcagcgtgaa    960
gctttcagca aattatacag tgtggctgaa cgtgtacacc tttgcgatga tcgtcgtatc   1020
aagcaggatt gggattatct gcaagccagc aataacttcc gttttatgac gaccaagaat   1080
accggtgtgt ggctgaatcg tggtatttat gattctcctt atgatgcctt tactaactat   1140
atgaatatct tgggggattt cattaaacgt gtaaattctc tctatcctga ggatatcgat   1200
aatgaagagt tgaattcatt gttgacaact atcaagaacc agggagaaga gatcgccgaa   1260
ttacataagg aggttgataa gttgcaggca aaagcggaaa aggctgcaaa aacagtaaag   1320
gccgaaccca aagctgcacc taaaaaggcc gctgcgaaga aacctgctgc aaagaaagca   1380
acggcaaaaa aagaagatta a                                             1401
```

<210> 3285
<211> 186
<212> DNA
<213> B.fragilis

<400> 3285
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gggttaacag atgcttgtaa gaatgcgttt gccgtgccgc tgacaaaaga ggctaccaga     60
aaaagaggaa aactctcctg gctggccgat ggaatgtaca aaccgaaagc tacagcgaac    120
atggcaaacg aaagtgccat ggtgtgtttg tatccgatag ctttgatagt catcgaagcc    180
ggatag                                                               186
```

<210> 3286
<211> 366
<212> DNA
<213> B.fragilis

<400> 3286
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gtgattaaag accacccgac ggagctaact tacatttatt tatataagat gtacgcaatt     60
gtagaaatca acggtcagca atttaaagct gaagctggcc aaaaattgtt cgttcaccac    120
attcagaatg cagagaacgg tgcaacagta gaatttgaca aagttctttt ggtagacaaa    180
gacggaaacg ttactgtagg tgctcctact gtagacggtg caaaagtagt ttgccagatt    240
gtttcaagcc tggttaaagg tgacaaagtt cttgttttcc acaagaaaag aagaaaaggt    300
cacagaaagt tgaacggtca ccgtcagcag ttcacagagt taacaatcac agaagtagta    360
gcttaa                                                               366
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<210> 3287
<211> 475
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (26),(149),(157),(163),(270),(274),(354),(376),(393),(406),(465)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3287
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ggggagagaa gggaaaaaga agaganagga gaaagaaaga aaagaaaagg aggaggaaag     60
aagaagagaa aaagggaaag aaagaaaaaa agagagagag gaaagaaaaa agagagagaa    120
agaaaaagag aaaaggggga gaaaaagana aagaagnggg ggnagaggaa aggggaaagg    180
gggaaagaag aaggaggaaa ggaaagagga aaagagaaga aggaaaagga agggaaggga    240
aaagaaaaga agagggaaaa aagggaaggn aagngaaaag gagaaaaaaa aaggaaaggg    300
agagaggaaa aaaagaaaaa ggggggaaaaa aggaaaaaaa aagaaagaag aagngaaagg    360
aagaaaaggg aagaanggaa aaaaaggaga agngggaaga aggaanaaag ggagagaagg    420
ggagggagag ggaaagagag gagggaagag aaaaaggaag aaggnggagg gataa         475
```

<210> 3288
<211> 1800

<212> DNA
<213> B.fragilis

<400> 3288
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ttattaatgg aaaacttaaa gaacgttgct cctattgaag acttcaactg ggatgcgtat    60
gaaaacggcg agagcttcgc tggtgccagc cacgaagaac tcgaaaaagc ttacgacggt   120
acgcttaaca aagtaaatga ccgtgaggtt gttgacggaa ctgtaatcgc aatgaacaaa   180
cgtgaagttg ttgtgaacat cggttacaaa tcagacggta tcattccttt gaatgaattc   240
cgctacaatc ctgatttgaa agtaggtgat actgttgaag tatacatcga aaatcaggaa   300
gacaaaaaag gacagttggt tctgtcacac agaaaagctc gcgctactcg ctcttgggat   360
cgcgttaatg ctgctctgga aaacgaagaa attatcaagg gttacatcaa gtgtcgcact   420
aagggtggta tgatcgttga cgtattcggt atcgaagcat tcttgccggg ttctcagatc   480
gacgtgaaac cgatccgtga ctatgatgta ttcgttggca aaacaatgga attcaaagtg   540
gttaaaatca accaggaatt caaaaacgtg gttgtttctc acaaagctct tatcgaagct   600
gaactggaac aacagaagaa agaaattatc ggtaagctcg aaaaaggaca agttcttgaa   660
ggaaccgtta agaatatcac atcttatggt gtattcatcg acctgggtgg cgtagacgga   720
ttgatccaca tcactgacct gtcttggggc cgcgtaagcg atccgaaaga agtggttgaa   780
ctggatcaga agttgaacgt tgttatcctc gacttcgatg acgagaagaa acgtatcgct   840
ttgggtctga aacaactgac tccgcaccca tgggatgctt tggatccgaa ccttcaggta   900
ggtgacaaag tgaaaggtaa agtagtggtt atggctgact acggtgcatt catcgaaatc   960
gctccgggtg ttgaaggtct gatccacgtt tcagaaatgt catggtcaca gcatttgcgt  1020
tctgcacaag acttcatgaa agtcggtgac gaagtagaag ctgtagttct gactttggat  1080
cgcgaagaac gtaagatgtc tttgggtatc aaacaactga acaagatcc atgggaaact   1140
atcgaagaga agtatcctgt aggttctaag catactgcta aggttcgtaa tttcactaac  1200
ttcggtgtat tcgtagaaat cgaagaaggt gttgacggac tgatccacat ctctgacctt  1260
tcttggacta agaaggttaa acaccgtca gaatttactc agattggtgc tgatatcgaa  1320
gttcaggtat tggaaatcga caaagaaaac cgtcgtttga gccttggtca caaacaactt  1380
gaagagaatc cttgggatgt attcgaaaca gtatttactg taggttctgt acacgaaggt  1440
acaattatcg aaatgctgga taaaggcgct gtagttgctc ttccttacgg tgttgaaggt  1500
ttcgctactc cgaaacatct cgttaaagaa gacggttcac aggctcagat ggacgagaaa  1560
ctggaattca aagtgatcga gttcaataaa gatgctaaga gaatcatctt gtctcacagc  1620
cgcattttcg aagatgttgc taaggcagaa gaaagagctg aaaagaaggc tgcttctaac  1680
gcaaagaaat cttctaagag agaagaaact cctgctatcc agaaccaggc tgcttctaca  1740
actctgggtg atatcgatgc tttggctgct ctgaaagaac agttggaagg taagaagtaa  1800
```

<210> 3289
<211> 1941
<212> DNA
<213> B.fragilis

<400> 3289
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tcataccttt gtttccgctc aaaagaaacg aacatacaaa tgaaacagac accattcaga    60
tgcctttgcc tccttcttat attgttggga gctgttcatt cccggctatc tgcccatgca   120
gataaaacaa gggaagacgt attgtttcta aattctatca atttcaacct tccatgggca   180
aaggatgtgt tctggtatac gcaccaagcc ctgcaaaaga agaatatctc cgtaaaggcc   240
gagtcccttt cggtgcccgc tttgtgtaac cgtaaagaag cagcagccgt agtagagcag   300
ttacggcgga aatacgatgt gcctccccga ctgatcgtct ttatcggcga tccgggatgg   360
attgtttgcc gtgaactttt tgatgatgtc tggaaggatg taccggtcat cattaccaac   420
gcccgcgacc gtctgccggc tacactcgac atcttgcttt cacacgaaga gctgaccgaa   480
tcgaatactg tccccgctta tgaatggcgg aaaggatata acgtgactac tctggggcaa   540
gtatattatg tgaaagaaac catcggactg atgcggcagc tgatgccgga tatgaagcgt   600
ctggctttca tctcagacga cagatacatc agtgaggcag ttcgcggaga tgtagagcag   660
gcaatgaccg gatctttcc ggagttggcc tttgaacagc tgtccaccag gaatatttct   720
accgagatgt tactcgatac cttgaagagt tatgataaaa ccacgggact catttattat   780
tcctggttcg agactcataa ccaggatgat aacaattatc tgttcgatca tattcaggag   840
attattactc gcttcgtaca ttcccctctg tttttgttgg ctcccgagga tctgtccaac   900
aatactttcg ccggaggata ttatgtttca gtggagtcct tcggcgattc attgttacag   960
ctgattcatc gtgtcctgga aggtgagttt ccgcgagaca ttcctcccgc tctcggagga  1020
aaacctgctg cttacctctg ttatccggct ttgcagtcgt atgacatacc ggtttccctt  1080
```

```
tatccgaaag aggctgtgta cattaatctg cctgtcagct tcttcgagca gtataagaag    1140
gagattctga tgactgttgt cttgctgctg gtggtggtca gtgccgtagg ctattatatt    1200
catattctta aaagagccca tcagcgaatg aaagaagcgc agctgaaagc cgaggaagcc    1260
aatcagctta aatcggcctt tctggctaat atgagtcatg agatacgtac tcctctcaat    1320
gccattgtcg gtttctcgaa tctgctttct atggtagaag ataaagaaga aatgctggag    1380
tatgccggta ttatcgaaac caataccgaa cttttgcttc aactgattaa cgatattctg    1440
gatatgtcga agatagaatc cggaatgtat gactttcatg tgactcaggt ggatgccaat    1500
cagttgatgt cggaagtcga acaggtagcc cgtttgcgta tcaggacaga cgaagtctcc    1560
ctctcgtttg ccgaacgttt accccaatgt gttttccata ctgataagaa ccgcttgata    1620
caggttctta ccaatttggt tgtcaatgcc ataaagttca cttcgcaggg agagattcag    1680
atcgggtatc ggctgcaaga tgcccatacg ttatacttct atgtatccga taccggttgt    1740
ggtatgtccg tcgagcaatg cgaacatgtt tttgagcgct ttgtcaaata caacactttt    1800
atacaaggca ccggattggg actgtctatc tgcaaaatga ttattgagaa gttggggggc    1860
gagatcgggg ttcagtccga gtccggaaaa ggttctgtct tttggttcac tcttccttac    1920
cgggcttcgg cctctttgta a                                              1941
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<210> 3290
<211> 657
<212> DNA
<213> B.fragilis

<400> 3290

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tcttcaacgt gtatggacag cattcaccta cagcaaacac ttccccaagt gtttgctgac     60
cgtaattcga taacttcgga tgtatggcat cggaatcttg ttttccataa aggaaaatct    120
tacctgatcg aggctgcctc cggtaccggt aaatcatcgt tgtgcagcta catctacggc    180
taccgaaacg actatcaggg aatcatcaac ttcgacgaaa ccaatatcaa agcatacccg    240
gtgaagcaat gggtggaaat ccggaagcat tcactgagta tgcttttca ggatttacgc     300
attttacgg agttgaccgc catcgaaaac atccgactaa agaataacct gaccggatat      360
aaaacccgaa aagaagtatt atcactgttc gaagccttgg gactctcgga caaactgaac    420
gtgaaggcag gcaaactttc tttcggacaa caacagcgag tggcgttcat ccgatcgctt    480
tgtcaacctt tcgacttcat tttcctggac gagcccatca gtcatttgga cgacaacaat    540
gcacgtatta tgggagaact ggtaatggaa gaagccagca acaagggc gggaatcatc       600
gtaacgtcca tcggcaagca tatcgagtta acgtatgaca gaatattgaa attatga        657
```

<210> 3291
<211> 2223
<212> DNA
<213> B.fragilis

<400> 3291

```
tatttgaggt gcaatatatt aatatggtgt ttttggttat tctcgctctg ttttgttcaa     60
aagggagtgg ctaacgttgt tcttgatcct cagaccaatc gtcccatctc tgccgattct    120
attttgaata atgtgatgac tttcgctcct tttacgaaa agttagtgac cgactatcgg      180
gccgatctat atataaaagg tacgatggac atcaaacgaa agaattttat tctccggtat    240
gtaccttcca tgttccgtct tcaaaaaggt gtacggcagt atatggtgga gacgtatagt    300
gatctgcatt ttacagctcc taatatctat gaccaaaagg tgaaagcttc tatgggcact    360
gtgcataata gccggggagt accggggatg ctcgagtatt tcaatatcaa tctttattct    420
tcaacgctgc tttacgaccg attgctttcg cctttggcca aaaacgggcg gaaatattat    480
aagtacctga tcgattccat aatgggtggg acggacaacc gacaatataa gatacggttt    540
atccccagaa gtaagagtga tcagttggtg ggtggatata tgattgtgag tagtgacgtg    600
tggagtgtcc gcgaaatacg tttttccggc aggtcggaac tgctattgtt cagttgcctg    660
ataaaaatgg gtagtgtagg aaaggatgat gagtttcttc cggtcagcta taatgtcgaa    720
ggacagttta attttttggg taaccgtatt aatggagttt atgtggcatc gctcaactat    780
cacgatattg tgcttgaaga aaatcagaat aaatggaaag agaaggtgag ggcgagaata    840
aaaggaaaaa gtaaatatga tctttcagac tcttataact tgcaatgcga gactacctct    900
ttccatacgg atagtgctta ttttgaaaca ttgaggccta ttcctttgtc ggaggctgag    960
cgcagactat acaaagaaga tgcgttgcgt aaagatacca ttcaacgcaa catcaaacca   1020
aagagtaaga gtcaggtgtt ttggggacag gtgggagacg tactgatcag tgactataaa   1080
ttgaacctct ccaatctggg aagcgtgaag tgctcaccac ttatcaaccc tttcttgttg   1140
```

```
agttatagcg ggagcaatgg gctttcctac aggcaatcgt ttaaatataa ccgacttttt    1200
aagcatgatc ggctattgcg tgtggtacct aagttgggct acaactttac acgaaaagaa    1260
ttctattggt ctgtcaatac cgaatttaat tacctgcccg agaagatggg agctgttcac    1320
attgactttg gtaacggcaa ccggatttac agtagcgatg tgcttgatga tttgaaagcc    1380
atacccgaca gtgtatttga ttttaatcag attcatttgg actactttta cgatttatat    1440
tttaacttcc gacacagtat cgagattatt aatggattag agttaagtgt aggcttatct    1500
acccataggc gaaaggcggt aaagtcctct aagttggttc cactgacaaa gagtcgggag    1560
acactcaatg aagatatcca gaacaaaatc aggaatacct atttgagttt tgcccctcgg    1620
gttcggttgg agtggacccc ttgtttatac tattacatga acggacaccg taagattaat    1680
ctccgttcta agtatcccac ttttttcgata gactgggaga ggggaatcaa gggggtattt    1740
ggcagtaccg gacaatatga acgtttggag tttgatttgc agcatcatat acccttggga    1800
ctgatgcgta atatctatta tcgttttgga tttggtatgt ttaccaatca aaaagaaatg    1860
tattttgtcg actttaataa ctttacccga agtaatcttc ctgaaggttg gaatgacgaa    1920
atcggaggag tatttcagct tctcgaccgt cgttggtata atgcttcacg gaaatatata    1980
cggggacatt ttacttatga agctcctttc ctattattaa aacatctgat taaatacaca    2040
cgttatgtac agaacgagcg gttgtatgcg agtatattgt cagtaccsca tcttcagccg    2100
tatgtggaat tgggatatgg aatcggtact cacatctttg attttggcgt ttttgtaggt    2160
agtgagaact ggaagtatac cgaggtcggc tgcaagttta cgttcgagct gtttaaccgc    2220
taa                                                                  2223
```

<210> 3292
<211> 963
<212> DNA
<213> B.fragilis

<400> 3292

```
aatataaata ggagtatgga aacagaaaga attaaatgcc ttattatagg ttcaggacca     60
gccggctata cagccgctat ctatgctgga cgtgcaaatt tgtcaccggt gctttacgaa    120
ggaatacagc cgggtggaca gttgactacc actaccgatg tagaaaactt cccgggctat    180
ccgcaaggaa tcagcggacc acaattgatg gaagatcttc gtacacaggc cgaacgtttt    240
ggtgctgaca tccgctttgg gattgctacc gcttctgatc ttggtcaggc tccttacaaa    300
attacaatcg atggtgaaaa agtaatcgaa gccgattcat tgattatcgc caccggagct    360
acagccaaat atttaggact ggacgatgaa aagaagtatg ccggtatggg ggtaagcgct    420
tgtgctactt gcgacggttt tttctatcgt aagaaagtgg ttgctgtggt aggtggtggt    480
gacactgctt gtgaagaagc gatctatttg ccggactcg cttccaaggt ttatctggtt    540
gtgcgcaagc cttatcttcg tgcttcgaaa attatgcagg agcgtgtgag gaaacatgat    600
aagattgaag tacttttga gcataatgta gttggtcttt tcggtgagaa cggtgtagaa    660
ggtatgaatc ttgtgaaacg ttgggaggag cccgatgaag aacgctattc attacctatc    720
gacggtttct tccttgctat cgggcataaa ccgaattcgg acatctttaa accctatctg    780
gatactgatg aagtgggata tattaccacc gacggtgaca gtcctcgtac caaggtaccc    840
ggagtatttg ctgcaggtga cgtagctgat ccgcattatc gtcaggctat tacagcagcc    900
ggaagcggat gtaaagctgc tattgaagct gaacgctatc tgtctgaaaa gggattgatc    960
taa                                                                  963
```

<210> 3293
<211> 714
<212> DNA
<213> B.fragilis

<400> 3293

```
tgcaaaagta gtaaaaaaaa gaatttcatt ggactaccca caacttttttc ttaccttttgc     60
gtttcaattc aagcagatat gaaaaaagag agtcaagtaa tatttgataa gaatgtgata    120
gaattcgtta cagtagccgc cgagttctgc gctttttttgg aacgtgccga aagtatgaaa    180
cgcagtacgt ttgttgatac cacccttaaa atacttcctt tgctttatct aaaagcatcc    240
atgcttccga aatgcgaaat gataggtgat gaatcacctg aaacgtatgt aacggaagaa    300
atttacgaag tgttgcgcat caacctggca tccatattgg cagaaaaaga cgattatctg    360
gaagtatttc tacccgacat ggcttacagt gacgaaccga tcaaaaagaa tatttcggaa    420
gatctggccg atatctatca ggatatcaaa gactttatct tcgtattcca gctgggattg    480
aacgagacga tgaacgattc cctcgccatc tgccaagaaa acttcggact cttgtgggga    540
```

```
caaaaactgg taaacaccat gcgtgccctg catgacgtaa aatatagtcc gaaagcccgg    600
ggagaagacg aagaggaaga agagtacgaa cccgaaaaca atgaagactg tcactgtgaa    660
gatgacgact gccattgtca cgatcatggc tgccattgcc atgatgatga ataa          714
```

<210> 3294
<211> 909
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(26),(149),(157),(163),(270),(274),(354),(376),(393),(406),(465),(512),(543),(54
4),(558),(584),(585),(629),(666),(667),(701),(703),(708),(716),(717),(726),(727)
,(729),(730),(732),(734),(741),(742),(743),(744),(745),(747),(748),(750),(751),(
752),(756),(757),(759),(761),(762),(763),(765),(766),(767),(768),(769),(770),(77
1),(772),(773),(775),(776),(777),(778),(779),(780),(781),(782),(783),(784),(785)
,(786),(787),(788),(790),(791),(793),(794),(795),(796),(797),(798),(800),(801),(
802),(803),(804),(806),(807),(808),(809),(810),(811),(812),(813)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3294
```
ggggagagaa gggaaaaaga agaganagga gaaagaaaga aaagaaaagg aggaggaaag    60
aagaagagaa aaagggaaag aaagaaaaaa agagagagag gaaagaaaaa agagagagaa    120
agaaaaagag aaaaggggga gaaaaagana aagaagnggg ggnagaggaa aggggaaagg    180
gggaaagaag aaggaggaaa ggaaagagga aaagagaaga aggaaaagga agggaaggga    240
aaagaaaaga agagggaaaa aagggaaggn aagngaaaag gagaaaaaaa aaggaaaggg    300
agagaggaaa aaaagaaaaa gggggaaaaa aggaaaaaaa aagaaagaag aagngaaagg    360
aagaaaaggg aagaanggaa aaaaaggaga agngggaaga aggaanaaag ggagagaagg    420
ggagggagag ggaaagagag gagggaagag aaaaaggaag aaggnggagg gataaggaga    480
aaaaggagag gaaaggaagg aaggaaggga anagaaaggg aagaaggaga aaaggagggg    540
aannggaaag aaaggaanga aaaggaagag aaaaggaaag gggnnaaaaa aaggagaaga    600
aaggggaaag gggaggaaaa aaaagaggna gaaaaagggg gggaagggga aaaagaaaaa    660
gagggnngag aaggaagaga gaaagagaag ggggggggagg ngnaggggnga aggggnnggg    720
gagggnngnn gngngggggg nnnnngnngn nnaagnngng nnngnnnnnn nnnannnnnn    780
nnnnnnnntn ncnnnnnnan nnnngnnnnn nnncacccc atgtcagcac tcctaaagtc    840
tatgcttccc gtacagagag tacagagaaa acgataacta accttaaaga taaaagtata    900
tgcctataa                                                             909
```

<210> 3295
<211> 531
<212> DNA
<213> B.fragilis

<400> 3295
```
agagatgtcg gagatattcg gcacttcagt cggagctttg aaagcttctt accatcatgc    60
cgtgaaaaaa atcgagaagt ttttggaaga ggccaattaa accttttaat atgtacaatg    120
tctaagaaga agagaggaga agaacgtatg aaagaagaag ataacatatt gaagaaagtg    180
gggaagaaga attcctttaa agtgcctgaa gggtactttg aaaacttgac ttcagaggtc    240
atgggggaaac tgccggaaaa agaaggtcct gcctttgaag aagtgaagca acccacgatg    300
tggatcagga tgaagccctt gctctatatg gcggctatgt ttataggggc tgcattgatc    360
atccgtgtag cttcttcgaa ccaccaaccg acaactgccg gtgatcatct cactgcaaat    420
gaagcagcga cagaagtggt ttcggatgaa tatattgatg tagcattaga tcgctcgatg    480
ttggacgatt actcattgta cgtctacctt agtgatgcga cagccgaata a              531
```

<210> 3296
<211> 225
<212> DNA
<213> B.fragilis

```
<400> 3296
ggtagcaacg gattatatat acccacatta aaaaaacaaa ttattaatca tacttttgca       60
ggtttatttc tgacatttag tcatttatac aatagaagta agtcatttgg aatagaccgc      120
tttctttttt atagaccttt cattctctgt ttttttccgat tttcttttcc cattttcctt     180
ttctcatttc cttttattcc atgctttttc cactctgtca actaa                       225


<210> 3297
<211> 402
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(37),(68),(69),(83),(109),(110),(154),(191),(192),(226),(228),(233),(241),(242),
(251),(252),(254),(255),(257),(259),(266),(267),(268),(269),(270),(272),(273),(2
75),(276),(277),(281),(282),(284),(286),(287),(288),(290),(291),(292),(293),(294
),(295),(296),(297),(298),(300),(301),(302),(303),(304),(305),(306),(307),(308),
(309),(310),(311),(312),(313),(315),(316),(318),(319),(320),(321),(322),(323),(3
25),(326),(327),(328),(329),(331),(332),(333),(334),(335),(336),(337),(338)
<223> Identity of nucleotide sequences at the above locations are unknown.


<400> 3297
ggagaaaaag gagaggaaag gaaggaagga agggaanaga aagggaagaa ggagaaaagg        60
aggggaanng gaaagaaagg aangaaaagg aagagaaaag gaaaggggnn aaaaaaagga       120
gaagaaaggg gaaaggggag gaaaaaaaag aggnagaaaa aggggggggaa ggggaaaaag      180
aaaaagaggg nngagaagga agagagaaag agaaggggggg ggaggngnag ggngaagggg      240
nngggggaggg nngnngngng ggggggnnnnn gnngnnnaag nngngnnngn nnnnnnnnan     300
nnnnnnnnnn nnntnncnnn nnnannnnng nnnnnnnnca cccccatgtc agcactccta       360
aagtctatgc ttcccgtaca gagagtacag agaaaacgat aa                          402


<210> 3298
<211> 1296
<212> DNA
<213> B.fragilis


<400> 3298
tttataggag gagggacgaa gatgaaagtt ttaatgtttg gatgggagtt ccccccgcat        60
atcttaggag gtttaggaac tgccagctat ggtttgacaa aaggtatgtc tcaacaagag       120
gatatggaga ttacattttg tattcccaag ccttggggtg acgaagacca gagttttctg       180
agaataatcg gtatgaacag tacaccgatt gtgtggaggg atgtagattg ggaatatgtc       240
aaagggcgtg taggctctta catggatcct caattatatt ttgacttgcg cgaccatatt       300
tatgctgatt tcaattatct gaatgcaaat gatctgggat gcattgaatt ttcaggcgt       360
tatccggata acttacatga ggaaatcaat aactactcaa ttgttgcagg agttatagca       420
cggcaacagg agtttgaaat tatacactca catgactggt tgacttatcc ggccggtatt       480
catgcaaaac aggtatcggg caaaccattg gtgattcacg tacatgctac tgacttttgac     540
cgtagtcgtg gtaatgtgaa ccccacagtt tatgccattg agaaaaatgg tatggatcat       600
gccgatcata ttatgtgtgt gagtgaatta actcgtcaaa cagtaatcca taaatatttc       660
caggatccga agaaagtatc aactgtgcac aatgcagttt ctcctctttc gcaagagata       720
caggatattg tacctaataa gaacccgaaa gaaaaggtag ttaccttctt gggacgtatt       780
acaatgcaaa aaggtcctga gtattttgta gaggcagctg cgatggtatt gcagcgtacg       840
cggaatgtac gttttgtgat ggccggtagt ggtgatatga tggatcagat gatccgtctg       900
gcagctgaaa gaggcattgc cgatcgtttc cattttccgg gattcatgaa agggaaacaa       960
gtatatgaag tcttgaaggc cagtgatgta tacattatgc cttcggtatc cgaacctttt      1020
ggtatttctc cgttggaggc tatgcagtgt agcgtaccaa gcattatttc caaacaatcc      1080
ggttgtgccg agatcttgga aaaatgtatc aagaccgatt actgggatat ccacgctatg      1140
gcagatgcta tttattctat ctgtacctat ccggctatgt acgagtatct ccgtgatgaa      1200
ggtaagaaag aggtggacga aataaagtgg gagaacgtag ctacaaggt tcgcggcatc       1260
```

tacgacgagg ttataaaaaa ttatggaaaa caataa

<210> 3299
<211> 2460
<212> DNA
<213> B.fragilis

<400> 3299
cacacattta ttaccatgaa aaaaggaatt actctttttc ttttgtctct gctttttcatc   60
accccggat gtaaacagtc aaaagaaacc atcgtgaacg aatacaatat cgttccgttg   120
ccaaaccaaa tgattcccca acagggacgg ttcgaaataa gtaaaaaagt aagagtcata   180
acaaccgctt gtacaccgga cgtacaaatc attgccgaca gcctcatcaa ccgattgaag   240
ctgacatcag gaattaccat aaagcaaact ttcgagaacg taacggacga gcctgttatt   300
cgtttcgtgc cgcaagacgg aatgcccgaa gaaggatata aactctctgt cactcctcaa   360
aatatcaccc ttacagcttc tacccccaag ggattttct atgcagtgca aacactttat   420
cagttattgc cacccgttgt atatggtaat caaaaggtga agaacgccga atggtcggta   480
ccggctgtcg aaatagaaga tgctccgcgc tttgcatacc gtggtctgat gctggacgta   540
tgtcgccact tctccccggt ggaatatata tataaattca tcgatatgct ggccatgcac   600
aagatgaaca ctttccactg gcatctgacc gacgaccagg gatggagaat cgaaatcaaa   660
aaatatccta aactgactga gataggttcc aaacgtaaag agacattagt agattattac   720
tatgtaaact acccgcaagt cttttgacggc aaagagcatg gcggatacta tacacaggag   780
cagatcagag ccattgtaga ctatgcagcc agcaaattta tcacggtgat ccccgaaatc   840
gagatgccgg ggcatgcaat agcagccatt gcttcttatc cggaactttc atgcaccccg   900
gacagtacat gcgatgtgac aggaacctgg ggtgtatttg agcaggtatt ctgcccttca   960
gacaccactt tccaattcct tgaaggagtg atggatgaag ttatggatct cttccccagc   1020
aaatacatcc atatcggtgg tgatgaatgc ccgaaaacag cctggatcaa cagtgaatac   1080
tgccagtcgt tgatcaaaca actgggactg aaagacgatg ttacccccaa cgttatcgat   1140
gggaagaaac ataccaaaga agagaagtta caaagctact tcatcacccg catggagaaa   1200
tacttgaata gtaaagggcg taacatcatc ggatgggacg aaattctgga aggcggactg   1260
gcccccgaatg ccaccgttat gtcctggaga ggagtagagg gtggattaaa tgcagccaaa   1320
gccggacaca acgccattat gacaccaaat ccatacgcat atctggatca gtatcaggaa   1380
gaaccggaga tagctcccgt caccatcggt ggatataata cgctcaaaaa gacttacagc   1440
tacaaccctg taccggacga tgcaaacgaa ctggtgaaaa agcatatcat cggtgtacag   1500
ggtaacatct ggacggaata catgcccggc aatgacaacc gcgactatca ggctttccca   1560
cgtgcagtag ccatcgccga aacgggctgg acattgaatg caaacaaaaa ctggaataac   1620
ttttgccaac gcatggtaga agacttccgt cgtatggatg tgaaaaatgt caaagcttgc   1680
cgcaatttct tcgatgtgaa tatcaataca catgtagacg aaactaatac gttgaaagta   1740
gtactggaaa gtttctaccc caatgccgaa attcactata caacaaatgg aagcgttcca   1800
acagtagaat ctgccatta caatcagcct ttcgccttat ccggcgaaat ggacgtgaaa   1860
gccgctgctt tcaaagacgg aaagatgttg ggcaaggtca gtggaaagaa gttgtatggc   1920
aatctgatca gtggtaaaag tttcacagtg actccgccca tcggagcggc caaaggcgac   1980
attttgggtg aaaatgatgt tctcggtact gatataagca cttttcggact gaccaacggt   2040
aaacgtggca acatcgcttc gatgactccg tggagcggat tccggatgaa cgacgcctgc   2100
aataaactgg tatttatcgt tgaattcgaa cagcctacta ctgtcagcaa agtggtcttc   2160
ggttcgttat acaaccccgc atcagtcatt ctccctccca gtgtagctac tgttgagacc   2220
tcttccgacg gacggaagta tgataaaatg gcagaagctt ccttcaaacg gaactatcct   2280
gaaagaggca gaaggcatt cactgacaca ttaggctttg cccccaaaga agtcaagtat   2340
atcaaaatca ctcttcaaaa tggtggtact ttacgaaacg gcattgattt cgtgaaagac   2400
ccgaatgaaa aagatgtggt tcaggctaac atctatttgg acgaaataga agtatattaa   2460

<210> 3300
<211> 258
<212> DNA
<213> B.fragilis

<400> 3300
tatacccta ttttttatagg ggtattttgc aaaataaata tgttttttct ttgtacaccc   60
ctatttgttt gtgggcgaaa gaactttttt gtatacttta cctatccgga gattactata   120
aaatatgaat ttattagtcg cataatcgga tttttttat atttgccttc aataaggaga   180

ttagtatttg aggtgcaata tattaatatg gtgtttttgg ttattctcgc tctgttttgt   240
tcaaaaggga gtggctaa   258

<210> 3301
<211> 1950
<212> DNA
<213> B.fragilis

<400> 3301
tgcacaacta tgagttattt acattttgac aagaccctga tgataaatct tgaggaatct   60
ttaccaaggg agattctccg gacgaacaaa tcaggagctt atcattgtac aacgattgta   120
gattgtaaca cacgcaaata tcatggattg ctggtgattc ccgtacccaa tctggacgat   180
gaaaatcatg tgctgctatc ttctttggat gaaacggtaa ttcaacacgg tgctgagttt   240
aacctgggat tgcataaata tcaaggaaat cactttagcc ccaatggaca taagtatatc   300
cgtgagtttg actgtgaaca tattccggca acaacttacc gtgtgggagg agtcatactt   360
cgcaaagaga aaatctttgt acatcatgag aaccggattc tgatccgtta taccttggtc   420
gatgcacact cagctaccac tcttcgtttt cgtccgttcc ttgctttccg tagtgtacgc   480
gaatataccc acgagaattc gcaggcgagt cgtgactacc agttagtaga aaacggcatt   540
aagacttgca tgtatccggg ctatccggaa ttgttcatgc agttgaataa gaaaaacgaa   600
ttccattatg aaccgaattg gtatagagga attgaatatc cgaaagaaca ggagagagga   660
tatgatttca atgaagacct ttatgttccc ggatattttg aagtcgatat aaagaaagga   720
gaaagtataa ttttctctgc cggtatttct gaaatttctc cccgcagatt gaaacaaact   780
tttgaggcgg aagttgccga ccgtacgcca cgtgatagtt tctatcattg tttaaagaat   840
tccgcccatc aattccataa caagcaggaa gaggaccatt atattttggc cggatatccc   900
tggtttaaat gtcgtgcccg ggatatgttt gtatcgctgc ccggattgac gcttgctgta   960
gatgagatag gtgaatttga agacgtgatg gaaactgccc gcaaagcgat caataactac   1020
attaaaggtg aaccgatagg ctgtaaaatc tacgagatgg atgatcctga cgtattatta   1080
tgggccgtat gggctctgca acaatatgca aaggaaacaa gtcgtgaaca atgtcgtgcc   1140
aaatatggtt ctttgttaga agaaatcatc gattttattc gtcagcgcaa acatgataat   1200
ctgttcttgc acgaaaacgg gttgttgtat gccaatggtg cagatagggc gatcacatgg   1260
atgaattcca cggttaacgg acgtccggtt attccgcgta caggttatat cgtagagata   1320
aatgctttgt ggtacaatgc cttgcgtttt attccgact tagttcgtga aggcggtaat   1380
ggattgctgg cagattcact ggatgcacag gctgaggtaa ccggaaagtc ttttgtggaa   1440
gtctttcgta atgaatatgg ttatctgttg gattatgtag acggaaatat gatggattgg   1500
agcgtacgcc ccaacatgat atttacggtt gccttcgatt attctcctct tgaccgggtg   1560
caaaagaaac aagtactcga tattgtgacg aaggaattac ttactccgaa gggactccga   1620
acattgagtc cgaagagcgg cggatataat ccgaattatg taggtcctca aatccagaga   1680
gactatgctt atcatcaggg tacggcttgg ccatggctga tgggattcta catggaggcg   1740
tatctgcgaa tctataagat gagtggaatt tcgtttgtag agcgtcagtt gattggactt   1800
gaagacgaga tgaccagcca ctgtgttggt tcgttgccgg aattgttcga cggaaatcca   1860
cctttttaaag ggcgtggagc agtatcgttt gcaatgaatg tggcggagat tttacgtatc   1920
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<210> 3302
<211> 2238
<212> DNA
<213> B.fragilis

<400> 3302
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aataaactat ccgattatta tgccagccat gtattcgatc gtaagaagat gcaagagtac   180
cttcccaaag aagcatacaa agcagtagta gacgctaccg aaaaaggcac ccctatcagc   240
cgagaaatgg ccgacctgat agccaacggc atgaaaagct gggcaaaatc gctcaatgtg   300
acacactaca cgcactggtt tcagccactg acagacggaa cggccgagaa acatgacggc   360
tttatcgagt tcggtgaaga cggtgaagta atcgaacgtt tttccggcaa attactgatc   420
cagcaggaac cggacgcttc ttctttccct aatggtggaa tccgtaatac attcgaagcc   480
cgcggttaca ctgcatggga cgtttcgtca ccggctttcg tagtagacac cactctttgt   540
atcccgacga tttttatctc atatacaggt gaagcactcg actacaaaac tccattatta   600

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aaagcattgg cagccgttga caaagctgct accgaagtat gccagctttt cgacaaaaat    660
atcacccggg tattcaccaa tttgggttgg gaacaggaat attttttggt tgacacctct    720
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gccaaggacc aacagttgga agatcattac ttcggttcta ttccaccacg cgtcacagct    840
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cctcccgcta tcttgtccat tttcctgggt tcacaactgt cagctacact cgatgaaatt   1320
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gccatgattg ccataaatgc tgccatggcc aaccagttga atgaatttaa agcatcggta   1560
gacaaactga tggaagaggg tatcggtaag gacgaagcaa tcttccgcat cctgaaagaa   1620
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caggaagcag cccgccgcgg actaaccaac atctgccatg ttccggaggc cctgatgcat   1740
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ctcgcctgcc gtctggaagt ggaattggaa aaatatacca tgaaggtaca gattgaaagc   1860
cgcgtattgg gtgatctggc catcaaccac atcgtcccta tcgctgtcag ctaccagaac   1920
cgtctttttgg aaaaccttg cagaatgaaa gaaatcttct ctgaagaaga atacgaagta   1980
atgagtgccg atcggaaaga acttattaaa gaaatctctc accgtgtatc tgctattaaa   2040
gtactggtac gcgacatgac agaagcccgc aaagtagcca atcacaaaga gaacttcaaa   2100
gagaaagctt ttgcttacga agagaccgta cgtccttacc tggaaagcat acgcgaccat   2160
atagaccatc tcgagatgga aattgacgat gaaatctggc cgttgcccaa atacagagaa   2220
ctgttattca cgaagtaa                                                   2238
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<210> 3303
<211> 717
<212> DNA
<213> B.fragilis

<400> 3303
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aaaaagaata tgattaccat acataacctc cggaaaaact tcggaaccca aacagccgtc     60
gatatcgaga attatacaat caatcaggga gagatggtcg gcctggtggg taacaatgga    120
gccggaaaaa caactttgtt ccgtttaatg ctggacctgc tgaaagctga taccggtgaa    180
atcattatca acgacattca tgtgaaccaa agcgaagact ggaaaagttt taccggtgca    240
tttatcgatg acggattcct gatcagttac ctgactccgg aagaatattt ctatttatc     300
ggtaaaatgt acggactcaa aaaagaagaa gtggatgaac gcctgatccc cttcgaacgt    360
tttatgaacg gggaagtatt gggacaaaag aagtttatcc gtaacttctc ggcgggcaat    420
aagcagaaga tcggtatcgt gtcggccatg ctacattatc cgaaactgat cattctggac    480
gaaccgttta tttttctgga cccaagttca caatccgtca ttaaacatct gctgaaaaag    540
tataatgagg aacataatgc cacggtcatt atttcgagcc ataacctgaa ccatacggtg    600
gatgtctgtc ctcgtattgc cgtgcttgag catggagtca ttatccgtga ccttgtaaac    660
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```

<210> 3304
<211> 1284
<212> DNA
<213> B.fragilis

<400> 3304
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agtatagata tgcttaccat aaacaaatt acagaaaaca ccgacgcggt aatccgcggt     60
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gacaaaagac gtaatacaca aaatcaatta gataaaaacc tggcagaggt aaattcactt    180
tcgaaaacga tcggtcagtt gatgaaagaa ggcaaaaagg aagaagctga agttgcaaaa    240
gcccgtgtag ccgagataaa ggagagcaat aaaacactgc aggccgacat ggaccaggct    300
```

```
gccaacgaca tgctgaatct gctgtatacc attcccaata ttccctacga cagtgtgccc    360
gaaggtgttg gtgccgagga caatgtagtt gagaaaatgg gaggtatgga aactcaactt    420
cccacagatg cactcccca ttgggaactg gctaagaaat acgacttgat tgactttgat     480
ttgggtgtaa aaataaccgg tgcaggtttt cctgtttaca aaggcaaagg agctcaactg    540
caacgcgcac tgattaactt tttcctggat gaagcacgta aatccggata taccgaaatc    600
atgcctccaa cagttgtaaa cgctgcttcc ggctatggaa ccggacaact tccagataaa    660
gaaggacaaa tgtaccattg cgaagtagac gatctctatc tgattccgac ggctgaagtt    720
ccggtaacca atatctaccg tgacgtcatt ttggatgaaa agcaacttcc tattaaaaac    780
tgcgcttata cacaatgctt ccgtcgggaa gccggctctt acggtaaaga tgtacgcggg    840
ctcaatcgcc ttcacgaatt ctctaaagta gaattggtgc gtatcgacaa accggagcac    900
tcccgtcagt cacatcagga aatgctggat catgtagaag gcctgctcca gaagctggaa    960
ctcccttacc gtattctccg tctctgtggt ggtgatatga gttttaccgc tgcgctttgc    1020
tttgatttcg aagtatattc tgaagcacag aagcgctggt tggaagtcag ctctgtatct    1080
aacttcgata cttaccaagc caatcgatta aaatgccgct atcgtagcgg agaaaagaaa    1140
accgaacttt gccacacact gaacggatcg gcactggcat tgccccgcat cgtagcagcc    1200
ttgctggaaa accatcagac tccggagggt atccggattc cgaaagcatt ggttccctac    1260
tgcggatttg acatgatcga ctga                                          1284
```

<210> 3305
<211> 699
<212> DNA
<213> B.fragilis

<400> 3305
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ataaaagata tgcacgtatt ttatacccct gatatacaaa ccagcacaga acttcctgaa     60
gaggaagcac agcactgtgt acgtgtgctc cgcctgacag ccggagatga aattagtctc    120
accgacggaa agggaaactt ctatcgggca gagatcagcg tggcaaccca taaacgttgc    180
ctggtgaata ttaaagaaac aatttaccaa gagcctttgt gggacggaca tctgcacatt    240
gctatggcac ccacaaaaaa tatggatcgt aatgaatggt ttgctgaaaa agcaactgaa    300
ataggggttcg acgaattaac attcttgaac tgccgcttct ccgaacggaa agtaattaaa    360
accgaacgca ttgaaaagat attggtgtct gccatcaagc aatcgttaaa agcacgttta    420
ccgcgtctga acgagatgac tgattttttgc acatttatcg aaaaagactt taaagggcaa    480
aagttcattg cccactgtta cgaaggagag aaacctttac tgaaagatgt cttgacaaaa    540
ggagaagatg ccctggtgtt gatcggaccg gaaggtgact tcagcgaaga ggaagtcaag    600
aaagcaatcg agaaaggatt tgtccctatt agtttaggca aatcgcgact gcgcacagaa    660
acagcagcat tggtggcttg ccacacaatg aatatgtaa                          699
```

<210> 3306
<211> 1491
<212> DNA
<213> B.fragilis

<400> 3306
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aacggtacca tgctattcaa tgaactacgc ctgcacggca aacttgcagc caaacgacat     60
ccgatgtacg aaaagaataa aatcggcaaa tacatcatgt atgcgtcctt tattttctgg    120
ggtgcttact ttatatttat tggcatcggt ctggcaaaag ccatcagcac agaagttccc    180
aatatggaag cctatcatat tttgaatagt ggattgatat ttgcgcttgc cctggacttt    240
gtaatacgtt tcccattcca aaaaactcct acacaagaag taaaaccitta cctgctactt    300
ccggtaaaac gaagccgtat actcgacttt ctgcttctcc gccacgggct cagttcttc    360
aatcttatct ggctgttcct gttcgtgccg ttcgcagcac tcacagtctt tccttttat    420
ggaatatcag gagttctcac ttacagcatc ggcatttggt tactgatggt tttcaacgga    480
tattggtatc tgctttgccg tacgctgatt aacgagcata tttggtgggt gttacttccc    540
atcgttgtct acagtggaat cgccatcgct attttattc cccaaacggg atttataagt    600
aacttttttca tgaacctggg agaaggttat atcgaaggaa atctacttgc ttacctaggt    660
acattggcag ccactgttct ggtatggtgt atcaaccgta aagtgatgac cggtttaata    720
tacaacgaaa tcaataaagt agaagacaca aaagtaaaaa ccgtatccga ataccgtttc    780
ctggaacgct tcggagaggt aggcgaatat atgcgtctgg aattgaagat gcttctacgc    840
aacaaacgct gtaaggcctc actccggtcg gtagcaatgc tcgtaatcat cttctccatc    900
atactgagtt tcagcagtac gtatgaccac atgaagagtt ttgtccaggt atactccttc    960
```

```
cttggattcg gtatggtgat tctgatacaa cttatgggat ttgaaggaaa ctatatcgac   1020
ggactgatga ctcgcaaaga atccatcaaa agcctgttga cagccaaata ttatatctat   1080
agcttggcgg aaatcattcc gctgatcctg ctgataccgg cttttgtgat gggaaaagcc   1140
agcctgctgg gtgctgtcgc actaatcttt ctgacaacag gtcctgtcta ttgcatcttg   1200
ttccaactgg cggtatacaa ccataaaacc gtaccactca atgaaagcat cacaggcaaa   1260
caaagtatga ataccggaat gcagatgtta atcagtttcg gactttttcat cgtaccaacc   1320
acactctatg gcacgctccc catgctgctg ggacaaacat gggcctacat tgtcatatta   1380
atcatcggat taggcttcac cttgacctcc cctatgtgga taaacaatgt atatgtccgt   1440
ttcatgcaac gccgttacga aaacatggaa ggattcagag atagtaaata a            1491
```

<210> 3307
<211> 795
<212> DNA
<213> B.fragilis

<400> 3307

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ataataaaca tgcatacaag agaagaacaa atggaagcgt tcggacgctt tctggacatc    60
ctcgacgaac ttcgggtaaa atgtccatgg gaccgcaagc agactaacga aagcctgcgc   120
cccaacacta ttgaagaaac ttacgaactt tgcgacgcat taatgcggaa cgacaaaaaa   180
gatatctgca aagaactggg agacgtcctg ctgcacgtag ctttttatgc taaaatcggt   240
tccgaaaccg gtgatttcga catgaaagat gtatgcgaca aactttgtga gaaattgata   300
ttccgtcatc cccatgtatt cggggaagta aaagcagaaa cagccggaca agtatccgaa   360
aactgggaac aattgaaact gaaggagaaa gacggcaata aaagtgtgtt aagcggtgta   420
cctgctgctt tacccctcact tataaaagct tacagaatac aggacaaagc acgcaacgta   480
ggattcgatt gggaagaaag agagcaggtt tgggataaag taaaagaaga aatagccgaa   540
tttcaggtgg aagtagccaa tatggataag gataaggcag aagcagaatt cggagatgtc   600
atgttcagcc tcatcaatgc tgcccgactt tataaaatca acccggacaa tgcattggaa   660
cgtaccaacc aaaaattcat ccgacgattt aactatctgg aagatcatac cattaaagaa   720
ggtaaaaatc taaagatat gagcctggat gaaatggatg ccatctggaa cgaagctaaa   780
aagaaaggat tatag                                                    795
```

<210> 3308
<211> 651
<212> DNA
<213> B.fragilis

<400> 3308

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gtgtatacaa tgaagcagat tataattagc atttggatag ctttactgac tttgcctgtg    60
tttgctcaac aacaaatgca ggcaaaagtt gtgcttgata agacggcggc cacatttgaa   120
aaggcaggcg gtatctgtgc ggaattcaac gtgacagtgt ttaacaaaag caggatggcc   180
ggacagtctg ccggagtcat cgaactcaaa ggggaaaagt ttgtactgaa aacagacgat   240
ggtattactt ggtttgatgg taagacccag tggagctatc tgagaagcag tgatgaagtt   300
aatatcagta accctaccgg gaccgaattg cagggcctta atccgtatgc gcttttacag   360
atataccgtc atggcttcga ctataagatc ggatcattga agaactttgg tggcaaaccg   420
gtctatgagg tagtattgac tgctactgat aagaagagag atttatcgcg aattgtgctt   480
tatgtgagta aagacactta tcaacccttg ttcattatga tggaacaacg tgataagagt   540
cgtagcgaga tcactgtgac cggttatcag acaggtttga aatatgccga tggtatgttt   600
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```

<210> 3309
<211> 2655
<212> DNA
<213> B.fragilis

<400> 3309

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gaggggaagt ggtatcagta ttggctggac cataaattat tcagttcgaa acccgatgga   120
cgtgaacctt acaccatcgt cattccgccc cctaacgtca ccggtgtgtt gcacatggga   180
catatgctta ataataccat tcaggatatt cttgttcgtc gtgcacgtat ggaaggtaag   240
```

```
aatgcttgct gggtgccggg aaccgaccat gcctctattg ctaccgaagc caaggtagtg   300
aataagttgg ccgcacaggg tattaagaaa accgatctga gccgtgacga gtttctgaag   360
catgcctggg catggacaga cgaacacggt ggtatcatcc tgaagcagct tcgtaagtta   420
ggtgcatcgt gtgactggga ccgtacggct tttactatgg atgaaaagcg cagtgaaagt   480
gtgctgaagg tatttgtcga tctctataat aagggactta tctaccgggg agtacgtatg   540
gttaactggg acccgaaagc actgacagcc ctgtcggacg aggaggtgat ttataaagaa   600
gaacatggaa agctgtttta cctgagatac aagattgaag gagaagacgg atatgcagtg   660
gttgccacta cccgtccgga aacgattatg ggtgacacgg ccatgtgtat caacccgaac   720
gatccgaaga atcagcatct caaaggaaag aaagtaatag ttcccttggt aggccgtgtg   780
attcctgtta tcgaagatga ctatgtggat atcgaatttg gtaccggttg cctgaaagtg   840
actccggcac atgacgtaaa cgactatatg ctgggcgaaa aatataattt gccgagtatc   900
gatatattca atgataacgg tacgatcagc gaagctgccg gaatgtatat cggtatggat   960
cgctttgacg tccgtaagca gattgagaag gatcttgaag cagccgggct gctggagaag  1020
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aagttgtcta tgcaatggtt cctcaagatg gaacatctgg cccagatcgc tcttgaaccg  1140
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gcatatttcc tgcccgaagg cggatatgtg gtagctgtga cggatgagga agccttgaag  1320
ctggctcggg aaaagactgg caatcctaac ttgaagatga ccgatcttcg tcaggatgaa  1380
gactgcctgg acacttggtt ctcttcctgg ttatggccta tctctctgtt cgacggcatc  1440
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gtgaaaggtt gggagaacgg aatgggaaca atcgatattc cggcagatgc tcacctagct  1860
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aaatatcgtc tgagcgaagc attgatgctg atttataaac tcttctggga cgaattctct  1980
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tcgatgacgt taagtgcttt cgaacgtctg ctggctatgc tccatccttt catgccgttt  2100
attacggaag agttgtggca gcagttgcgc gagcgtgaac cgggtgcaag cctgatggta  2160
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aaaatgtgta atctgtctgc catcgaggta gtggacgcaa aggccgacgg agcttcttcg  2400
ttcatgatag gaaccactga atttgcggtg cccttgggca atatgatcga tgtcgatgcc  2460
gagatagcac gcatggaagc cgagctgaaa cacaaagaag gtttcttgca gggagtttta  2520
aagaaattga gcaatgaaaa gtttgtaaat aacgctccgg cagccgttat cgagatggag  2580
cgcaagaaac aggcggatgc cgaaagcatc atccagtcgc tcaaggaaag tattgcttcc  2640
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```

<210> 3310
<211> 954
<212> DNA
<213> B.fragilis

<400> 3310

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atggactcta agggagtgtc atacgactat gtgcagtccg agggtttcgg atcggtagaa   180
cgactcgccg gcattctggc caacaacggt tatcgcacca tcgtagtagt gggcggagac   240
ggtgcattga atgatgccat taacggcatt atgagttcga acgcagaaaa aaaagaagag   300
atagccatcg gtatcatccc caacggaata ggaaacgact ttgccagata ctgggaattg   360
aatctggaat acaaacaggc agtagactgg attatcaata accgccaaaa gaaaatagac   420
gtgggttact gcaacttta cgatggcgaa aaacaccaac gacgttactt cctcaatgca   480
gtcaatatag gattaggtgc gcgtatcgta aaaatcacgg accagaccaa acgtttctgg   540
ggagtaaagt tcctctccta tctggcagct ctcttcctgc tgatattcga acgcaagctt   600
tatcgttcac atctcaaaat taacgacgaa cacatccgcg gacggattat gacagtctgt   660
```

```
gtgggaagtg ccaccggata cggacaaacc ccaagtgccg taccctataa tggctggctg    720
gatgtatcgg tcatctaccg tcccgagttc ctgcaaatct tgtccggact gtggatgctt    780
attcaaggac gcatattgaa ccacaaagtg gtgaaatcct accgtacccg aaaagtaaaa    840
gtattgcgtg cccagaatgc cgccgtcgac cttgacggac gcttgttgcc acgccatttc    900
ccgattgaaa taggaattat cccggaagca accacattga ttatacccaa ttga          954
```

<210> 3311
<211> 1581
<212> DNA
<213> B.fragilis

<400> 3311

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attccggccg atgcttcggc tgttgcttcc attaatctga attctcttgc tgacaaagcc    180
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gggattgatg tcaaagctcc tgtattcgta tttacttcca agactttcat tagtcccact    360
atagttgcca aagtcagtaa tatcgaggac ttgcgtgctt cgctcgactt aatggccaaa    420
gaaggaatct gccagcctat ggcagaagaa gaggggtaca gtttcacatc cttgcagaag    480
aacaatctat tggtctttaa tgaaaatgca gcagttttga cagaagccta cggaacttct    540
caaatggatg ttgccaaaca aaccatctcc acactgctca aacagaccga agagaacagt    600
atcgcctcaa acggcagttt ccggaagatg caggatcaga aaggagacat caacttttt    660
gcttcaatgg atgcggttcc caaaatgtat actcaacaaa tcagtctggg actctcttca    720
caaatcgact tgagtgaagt aaaagctgtg ggtaacctca actttgagaa aggaaaaatc    780
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aaactcgctt caaaaatttc gtatatcgag gcattcagtg acagcgaagg taagaccgaa    1500
acagccattc ttctgaaaaa caaagacgac aatgctttaa aacagatagt agactttgcc    1560
aagcagttcg ccggcatgta a                                              1581
```

<210> 3312
<211> 576
<212> DNA
<213> B.fragilis

<400> 3312

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cagttatact ggcaaatccg gcggatggtg ctttcacacg atgatgccaa tgatcttctt    180
caaaacactt tcattaaggc gtggataaac attgattatt ccgggctga ggcaaagcta     240
tctacctggc tttaccgtat tgccctgaac gaatgtatca ctttcctgaa taaacagcgg    300
gctatgaata cggtcgccat tgacgatccg gaggccgatg tcacccagaa actggagagt    360
gatccttact tttcgggaga tcgtgcagaa cttttgcttc agaaagcact gctgaccctt    420
cctgagaagc agcggatggt gtttaacctg aaatactatc aggagatgaa gtatgaagag    480
atgtcggaga tattcggcac ttcagtcgga gctttgaaag cttcttacca tcatgccgtg    540
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```

<210> 3313
<211> 657

<212> DNA
<213> B.fragilis

<400> 3313
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tatctgcaat cccaagccat cttgggaatc gacagcgaga cacgtccctc attcaccaag   180
ggacattctc ataaagtagc attacttcag atttcatctg acgagtgttg ctttctgttt   240
cgcctgaaca tgaccggcct aacccaacct atcatagaac tacttgaaga tccgaaagta   300
atcaaagtgg gcctttcgct aaaagacgac ttcatgatgt tacacaaacg agcccctttc   360
aatcaacagg catgcattga gttacaagag tacgtccgtc ctttcggcat tcaggataag   420
agcctgcaaa agatatacgg tatcttgttt agtgagaaaa tctcaaaatc acagcgtctt   480
tctaattggg aagcagatgt actgacggat gctcaaaagc aatacgcagc tacagatgct   540
tgggcctgcc tcaacatata tcacttattg gaggaactga aacgaacagg aaactacgaa   600
ttggctccgg aagaggaagc cacagagaaa gtaaaagtag gttcagatca acaataa      657
```

<210> 3314
<211> 864
<212> DNA
<213> B.fragilis

<400> 3314
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gccagtgaaa atccttatgc caaagaaaaa gcaagtggtc cgctttccca aggtcttttt   180
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gccaatctgc tggcaaccga agaatccaga ttgagggaag tgttggatta tataccgcgc   300
caatatacct gttttcatgt tcggaaaaga agtggcggat ttcgttatat ttcggctccc   360
gcaggtgatt ttcgttccat gcaacaaact atctatcacc gtattttatt gttagctaac   420
atacatcccg ctgttaccgg attttgtccg ggaaagtccg tatccgataa tgcacgggtg   480
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gatgaagttt tggtacgaat ccacaggatt attcgggaag aagggtttca cgatgaacgt   840
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```

<210> 3315
<211> 2517
<212> DNA
<213> B.fragilis

<400> 3315
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cagaagccgg cttccacaaa aaaatatgtg gctttcttca ggaacgaaac aattcacttt   120
gtaatcgggt tggtactggt cattttctca gtctatttgt tactggcctt tacctctttc   180
tttttcactg gagcagctga ccaaagtatt attgatagcg gaaatgccca ggaccttgct   240
gctgtgaaca atcacgtaaa gaactatgca ggttcccggg gagctcagtt ggcaagctac   300
ctgatcaatg attgttttgg catttcctct ttctttattt taatctattt ggctgttgcc   360
ggactcaaat taatgcgtgt gcgtgtggta cgcctttgga aatggtttat cggatgttca   420
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atgagtgccc gcaccatcat ttggctgcgt aagcttttta gtcttagttt cttgaagcgt   660
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aaaaaggtgg aaactactgt tgtgtctgaa acacctgtcg aatcttcaac cgaaatgcct   840
gtgactccgg aagacaggga tgtgacatcc gatggtgatg tgactatgac ttttgaacag   900
```

```
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ttgatggatc agctggaaaa ggccggtatt gtaggtccct cacagggaag caaggcacgc   2460
gatgtgctgt gtgtggacga aaatgacctt gaaatgcgtt tgaacaatat tcaataa       2517
```

```
<210> 3316
<211> 405
<212> DNA
<213> B.fragilis
```

```
<400> 3316
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ggtagtatta cgattgatga gaatctattg gatgcagcta atatgattgc cggtgagaag    180
gtgtacattg ccgacaataa taatggcgag cgttttgaga cctacattat caaaggtgaa    240
cgcggatcag gtaaaatctg cttgaatggc gctgcggccc gtaaagtaca accggatgat    300
attgtgatca ttatgtcgta tgcgttgatg gattttgagg aagctaagtc gtttaagccg    360
actgttattt ttccggatcc ggctacaaat agtgtagtga agtaa                    405
```

```
<210> 3317
<211> 933
<212> DNA
<213> B.fragilis
```

```
<400> 3317
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actaagaatc ataaaccaat taaaatgaaa gtaatacata cgatcaagga cttgcaggct    120
gaactttcgg ttttgaaagc ccagggtaaa aaggtggggt tggtgcctac tatgggtgct    180
ttgcatgcag ggcacgcatc tcttgtaaag cgtagtgtaa acgagaatga agtaacggtg    240
gtaagtgttt ttgtgaaccc tacccagttt aatgataaaa atgatcttgt taagtatcct    300
cgcacactgg atgccgattg taaattgctc gaggcttgtg gagcgactta tgcttttgct    360
ccttcggtgg aagagatgta tccggaaccg gatacccgcc aattcagtta tgctcctttg    420
gatactgtaa tggagggggc tttccgtccg ggacacttta tggagtatg ccagatagta     480
agtaaactgt tcgaagcggt gaaaccacat cgtgcatact tggtgagaa agatttttcag    540
caattggcta tcatccgtga gatggttcgt cagatgcagt ttgatcttga aatagtaggt    600
tgtcctattg ttcgtgaaga agatggtttg gctctgagca gccggaatgc gcgtctgtcg    660
```

```
gcagaagaac gtgaaaatgc attaaaaata tctcagacct tatttaaaag tcgtaccttt    720
gcagccactc acacagtgag tgaaacgctg aagtttgtgg aagatgctat tgctgctgtt    780
ccgggattgc gtctggagta ttttgagata gtagacggaa acactttgca gaaggttgat    840
aattggaacc aaacatcgta tgtagtaggc tgtataacag tgttctgcgg tgatgtcaga    900
ctgattgata atattaaata caaagaatct taa                                 933
```

```
<210> 3318
<211> 867
<212> DNA
<213> B.fragilis
```

```
<400> 3318
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aagcagtttg agatgacgcc tccgagcagc aatctttcgt cacttttttcc tacagggaga    120
gccgtgcgca atcctcttgg taaggtttat ttcgtggtta tattaaaagg gaaggccatg    180
gtacggatag atggcaaaag catgctgttg cccgaacgga ctttcttgtt tcttccgccg    240
gggcatctac tcctccggct ttcgtgtacg caggattttc tttttcagta tctttcattc    300
agtttcgact ttctgtccga ttttcccctg ttgttgaagg cagacatatc gaatcaggtt    360
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catttcattt atcatcgtta ttcggatgcc gaatgtccgt cagaagttat caaagggatg    480
ctgttctctt tggtactgga agtgtgccgg atgtattcgg gtagaaatat ttcggtagag    540
atgtcccggc aagataaatt ggtagatggt ttcttcagtc tgttgcataa atattgcaca    600
caagaacgga tggcagcctt ttatgcgagc cggttgtgta tatcggataa atatctgatg    660
aggagtataa agaaacaaac cgggcaaacg tttcactatt ggatggcgga ttttatactg    720
agagaagcca aactgatgct gagatcgacg gatttgagtg tcacagagat agcggataaa    780
cttagttttc cgaactcttc ttctttcgcg cgttttttcc gtaaatatac aggcttctcg    840
cctgttcagt tcagaaatga agcataa                                        867
```

```
<210> 3319
<211> 972
<212> DNA
<213> B.fragilis
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```
<400> 3319
aaaaccgtat ctttgcaccc cgaaaaaatg aatataataa tgaatattaa tagtaaggct     60
aaaggatttg tgtgcggggc tgtggctgcc gccacttatg gcatgaatcc gttgtttaca    120
ctgccgcttt ataaagaggg aatgtcagtg gactctgtct tgttctaccg ctacgggttt    180
gccgtgctca ttctaggcat tctgatgaaa gtacaaggac aatcgttcgc tctgaaaaag    240
aacgaggttc tgccgctgat tgtaggcgga ctgctctttt ctgcttcctc attgttgttg    300
tttctgagtt ataagcacat ggatgccggc attgcttcca ccattctgtt tgtctatccg    360
gtgatggtgg cgcttatcat gttcttgttt ttccatgaga aagtatcgtt actgaccgtg    420
ttctgtattc tgttggccct ttccggcatc ggactgcttt acaaaggaga agggggtgag    480
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atagtcggtg tcaatcattc caccctgaag ttgatgtcaa cggccaagtt gacctttttat    600
gccctgctgt tcggtctttc catttatata gtccgtttga attttttgttc ggacttgcaa    660
gctgtgcctt cacttcctgc ctggggtaat attctggcaa tggctttcct gcctaccgtg    720
atttcactgg tatgtaccgc tgtgtccatt cacaccattg gctccacgtc gaccgctatc    780
ttgggagcac tcgaaccggt gacggctctc ttctttggtg tcatgatttt tggtgagcgg    840
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gtgggaaagc cgttgatgac ttttctcaaa gaagaagtgg ccggaggaat gaagagaaaa    960
ctgacaagat aa                                                        972
```

```
<210> 3320
<211> 810
<212> DNA
<213> B.fragilis
```

```
<400> 3320
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```

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tactgggtgt tgagcgacga tgcgcttgca ccggtatccg aacggacgct gcccgtgggg    120
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caaccctctt ctttcatcag cgggcaggcg ttcggctatt ccgatgtcga gtctacgggg    240
atgctggaga tgatcgtagt cgtttttcag ccttttgccg caaaagcttt tctccatatg    300
cctgtcagcg agtttcgtgg gatgaatgta aataccgaag agacgggcga tcctctgttg    360
gttgatctgg gcaggcggat agccgatatg ccggatcggg tagcgtgtat ccgtctgata    420
gaggagtttc tgttaagccg tctctatgct tttcccgaat ataacctgaa gcgggtttcg    480
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aaggagtttc tgcgcattgt gcggatacag cgggcgttgt atactctaca atgccagccg    660
ggcatttcgt ttgcgcaact ggcctacgaa tgtggtttct tcgaccaatc acacatgatt    720
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tattccgatt atttctctgt ggaggaatga                                      810
```

<210> 3321
<211> 498
<212> DNA
<213> B.fragilis

<400> 3321

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gaaatcagat ctatgaagca acaagaaact aatccagaca gcctaattga aaactatctt     60
ccggcagatt attatgactc cttttcaaaa gagttgcata ataagaatgc aatctccact    120
gacgagtttg cagatatagt ttttaaccaa ctaccctcct ggattatccg gcttctaaaa    180
gtaagaaatt gtatagtcaa gcctttggga ctcaatacaa acagacgaat cacggatatg    240
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tacgtatccc tttggtgtaa ggtttccgaa gccaacagcc aaactttacg aatcaccacg    360
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aaagttatta ttcgatcatt attggagaga gtagaaaaaa ggtataaact tatatctctg    480
gagagagaag cgtcttga                                                   498
```

<210> 3322
<211> 876
<212> DNA
<213> B.fragilis

<400> 3322

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aagatagatc ccaattcttt ttcttacctt tgtgtgttgt ggagacataa atccgacaac     60
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cccctccaac cctacagaat aggcaacagt acacttctat cgaacaggaa aaccaccgct    180
ttcctatgct cccgacaagt tcctgagaat aaaataccac ccatttataa ttggataaat    240
caattatctc cggaaaaaga ctgtatccta tgcggtaatc attcaaggat ggaacaagag    300
gtcttcaata tactattgga aaagaaaata ccagtcattt tggcattggc tgaaggcatg    360
aaaaaagaat gggacaataa ggttaagtta gcactcgaag aaaacagaat gcttatcgta    420
acaacttgcg acgacaaaat acataggatc aatcatcaat cggcttatga ccggaatgaa    480
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acagaattaa tattcacgga taaagtggct gacagtgatg taatgatcta tagaacatcg    660
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aaaatcaccc aaagtaaacc tcagggaaat agcgctttcc acagagagac cattttttata   780
gacaagaatg aagtgctcca attcaaagaa gaattggaga aagttattga ttattggaag    840
atatctacca ttaaaaagaa tcagactcct atatga                              876
```

<210> 3323
<211> 1293
<212> DNA
<213> B.fragilis

<400> 3323

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agacaggtac ctaccattcc tcgtatcgat atggtgtacg atgctttcaa ggcctatgtg     60
```

```
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ggatattacg tcaacatggt tcttcacaaa gagccggata agctgctttg cggggctttc   180
aaacgcatca gccagttgag ggttgacgtt agttacccgt ttttattacc gttgtacaac   240
gattatgtca acgaagttat cagcagggac gagttctacg aagctctttg tctggttgag   300
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atacttgatc caaaaggttt gtgcaaagat gtatccaact tgggacgatg gggcaatggc  1200
gatgtagaag tcggtatttc gaatatgaat gaattggatg atatcatgga gttgattcaa  1260
caagcgtttg ataagcaaat ggaagcgaac tga                                1293
```

<210> 3324
<211> 852
<212> DNA
<213> B.fragilis

<400> 3324

```
attctttcgc ccatgataga agctcccgaa gcccgcctac tgtgcgagca actgaacaag    60
accgtatgcg gcaaacgaat cacggatgtg ttcgctcaat acacaccaca taaatttgcc   120
tggtttttatg gtaaaccgga agagtgtgcc gaacgcctgg ttggcaagac cattgacaga   180
gcctgtccac aaggcggaat ggtcgaacta acggcgggag acacgatgtt ggttttgaca   240
gacggggtca atcttcgtta tttcgaaccg ggagcgaagt taccctccaa acatcagctg   300
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ttgtgcttta cccaaggaca ttttgacgca ccgttggccg cttactacga aacggccaga   420
acaaagccac aagtgatgac agacgccttt gacaaggagt actttcttgg attggtaaat   480
gcgccggaag cacagaagaa accggcaaaa gcttttctgg ccacggaaca gacaattccc   540
ggactgggca acggagtgtt gcaagacatc ctgtaccatg cgcatatcca tcccaaaaca   600
aagatcgaca aactgggcgc aaaggaaaag gagaaaatgt acgaacaagt gaaagagaca   660
ctacaagata tctaccacct gggcggacga agcaccgaaa ccgatttatt cggagttccc   720
ggccagtacg tagcctccct gtcaaaagat acagcgggac atgtgtgccc gaaatgtggt   780
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gtaatgaaat aa                                                        852
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<210> 3325
<211> 1017
<212> DNA
<213> B.fragilis

<400> 3325

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cgcatgacta tcatagccga agtagcgcag gcatactatg aacttgtagc tctcgatacg   180
gaattggata ttgttcgcca acattgaaa gcacgtgagg aaggcatgcg tcttgcccgc   240
atccgtttcg aaggaggttt gacatctgaa acttcttatc gtcagtctca ggttgagttg   300
gcacgtactg caacactggt gcccgatctg aacgtaaaa tatctctgaa agaaaacgat   360
atagctttc tagctggtga atatcccaac aaaattaccc gtagccgttt gttgcaggag   420
tttaactttc cacaagagtt acctgtcggg ttgccttccg gattattgga acgtcgcccc   480
gatattcgtc aggctgaaca gaaattgatt gctgccaatg cccgggtagg agtggcttat   540
```

```
acgaatatgt ttccacgtat ttcacttacc ggtagggtag ggtcggaaag taccgctctc    600
tccgaactgt tgaaatcgcc ttatagcatt atggaaggtg ctttacttac gcctattttt    660
ggttggggaa aaaatcgtgc cgctctcaaa gcaaagaaag ccgcttatga agctgaagtg    720
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gatgcccagc gtggatattt cgatgcccaa atcggactca gcaatgcgat aagggacgaa    960
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<210> 3326
<211> 1683
<212> DNA
<213> B.fragilis

<400> 3326
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gttgaaggcg cagctacaca atcagtagcc gatcaggaag ctatccagaa actgttcccg    180
aacacttacg gaatgccgtt gattaaattc gaagaaggtg aagctatcca gctccccgct    240
atgaatgtag gtgttatcct ttcaggagga caggctccgg gcggacataa cgtaatctct    300
ggtctgttcg atggtatcaa gacactgaac aaagacaaca agctgtatgg ctttatcctg    360
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taccgtaata caggtggttt cgacattatt ggttcgggac gtaccaaact ggaaactccg    480
gaacaattcg aaaaggggct ggagattatc aataaattgg gtatcaaagc actggtaatc    540
attggtggtg acgactctaa tacaaatgcc tgcgttctgg ccgaatacta tgctgccaag    600
aatgccggtg tacaggtgat cggttgtccg aaaactatcg acggtgactt gaagaacgaa    660
atgattgaaa cttctttcgg tttcgatact gcatgtaaag tatactcaga agtgattggt    720
aacatccagc gcgactgtaa ctctgcacgt aaatactggc acttcattaa actgatgggc    780
cgttcggctt ctcacattgc actggaatgt gctttgcagg ttcagcctaa cgtatgtatc    840
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ggtctggttg agtttatccc ggctatgaaa cgtctgatcg ctgagttgaa tgacttcctg    1020
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gtaggtaaat ttgctgcaca gcaccacttc ttcggttacg aaggacgttg cgctgctcca    1320
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aacggtaaga ccggttacat gtcatctgta cgtaatacaa ctgctcctgc tgctgaatgg    1440
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aaaccggtaa tccagaaagc attggtgaaa ctggacggaa aaccgttcct gacattcgct    1560
gctaaacgcg atcagtgggc gttgaataca gattacgtat atccgggccc gattcaatac    1620
ttcggtccga cggaggtttg cgaccagccg actaagacac tgcaactgga acaagctaag    1680
taa                                                                 1683
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<210> 3327
<211> 2907
<212> DNA
<213> B.fragilis

<400> 3327
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aaaggaaata caagtgaagt cttttatgag aacaaaattt gtatttcctt tgttttattt    60
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gctattatcc ctctgctgct gtatgcttgt tctgctgaag aagaaagagc gttaacatcg    180
actactcttg aggtagcaca gtctgccatt gattttaaaa gtgatgcagg gacccgtgac    240
atcgctattg ttaccaatgc agaccattgg acggcacggt ctgataaaga ttggtgttcg    300
gttgctgtca acgaaagtac attgacggtg aatgtgtccg gatacgatgg aaaagagaca    360
agggaggcag tgattaaagt tactgccgat ggattggcag aaactgttaa cgtacgccaa    420
ttgggatcag agcctgctat tttgatatct caacagatct ttaccgttga ggccagtggc    480
```

```
agtgatatcg cattcgatgt aactacaaat gtttcggtga ctatcacatt gccggaatgg   540
atcaaagaga aaccggcagg tacacgtgca tccgaaatgg tgactacgac gcataattac   600
attgttacag ccaatccgga agatagtgaa cgtacgggca atatcactgt gaaagaggtc   660
ggcggagaac ttgaggcctt ggtatctgtt actcagaaag gattgggaga atatgaatcc   720
ggaaatctcg agggtatcaa agacgatatt aaggttccgg tagaatcagg tgaagcaagc   780
tcttttcagg gtggctcgaa tattgataaa tcattcgatg gtgatatgag cactatttac   840
cattctaact ggaataacgc gggagatcat tatttcccca ttacgttgac ttataatttt   900
gctgcgggtt cggatatgga ctatcttata tattatcccc gtacctcagg accgaatggt   960
aacttcaagg aagtggagat ccgtgtaaag tcaaatgcga ataccagagg gaccgatgaa   1020
tggaatacgg tgatgactaa aaacttcggg gggacgaatg ccgcagtccg tgttaatttt   1080
ccgaaggcac aaatcggagt cacgtcggtt cagtttattg tcaaatcagg atcgggagac   1140
gggcagggat ttgctgcttg tgccgagatg gaattttata aaaagaatcc ggatgcattc   1200
gacccgctca ctcttttcac cgatggtaca tgctctgaat tgaagcccgg acttaccgat   1260
gaagaaatag agaactgtcc gtattcattc tacaagaaca tagcttacta tatgaagcag   1320
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gcagtgattc agaatctgga tgttcccggt ggtgatggtt cggaggaac ctcttatccg    1560
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cacactcctg actatgaaac tgctcagcct gtaaagatac atatcgcttc cggacaagta   1680
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cgtttccgta ctcatactcc ggacgggaaa gcactgatcg atgcttatga tcagattgtg   1860
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tacctgcatg tgatgtatac cagctatatg tatgccacca gttatcatac tgcttacaat   1980
gacggtactc tggccgaact ttgtaatgtg gataaattga agacatctgc atgttgggga   2040
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acggaggtaa cgaacaatat catgtccgag tacatccaga ctacaatttt cggacagcct   2160
tctcgcttgc aaacagaaga tatgggagat ggcagtcgta accgttattc caaggcctgg   2220
acccagatca ttgcggcagg tgcgccacat ggaaattttg gaagtgacag cgatgttttc   2280
tgtaaactcg ttcctttctg gcaattggaa ctctatttcg gtaaagtact cggacggaca   2340
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atacgaagtc gtgtagaggc tttgggatat ccgaaaccgg atgttgctct ggaatatata   2640
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cggagcggtt cgacatttac catgaccaac tggaaaaatg tggcagctta tgaagttgta   2760
gatgaaaccg gcaagaaagt ctgtatctct gatgggctgt tagcaccttc cggtactgct   2820
acgtttacca tgaaaaccgc ttggaaagac ggctttaagg tatatgctgt ttctgctacg   2880
ggagccagga ctgcagtgac gtttttaa                                       2907
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<210> 3328
<211> 531
<212> DNA
<213> B.fragilis

<400> 3328

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tcttcgttcg gaaaaggcat gaaagtatat tctgcaggga caatgcccgc agcagagatt   180
catccgttgg tcctgaaact aataaaggaa acaggtatcg aaccgaacac acaacctccc   240
cactccatcc gtgaatacac caacgaaaac tgggaccata tcatcgtact ttccggtacg   300
gccgatgata tacgcaatct cttccggaag gaggtaaaac actggtatca tcttcccttt   360
gaagacttgt tctccacagc ggcaccaagc gaagcggaac tgtgggatcg cctgatacgc   420
ctgaaagaag atatacaaag aaaaatgtac gaactatacc gggacgatct gagagagcaa   480
ttactaccgc gctgtagctg cggagccaat gactttttgca gatgtgagtg a           531
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<210> 3329

<211> 189
<212> DNA
<213> B.fragilis

<400> 3329

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aagcaaggat gtaaacttcg tgcccttcgt ctgctctgtg gcatacctgt agagaacaaa   120
atcatcattt tctttcataa ttcggaaaaa aacacgaaat ttgcgacact tttaagttcg   180
aattactaa                                                           189
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<210> 3330
<211> 1188
<212> DNA
<213> B.fragilis

<400> 3330

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ccattttatt tgagcgaaag tattgactcg ttgactaatg ctttcttcga gaccatgtcg    60
ggatttacta ctacgggagc tacgattctt gatgatatcg aatcgctttc gcatggtatg   120
cttttctggc gcagcctgac acaatggatt ggcgggctgg ggattgtttt tttcacaatt   180
gccgtattgc ccgttttcac cagtggggga gtacagcttt tttccgccga gtctacggga   240
gtaacccacg accgtaccca tcctaagatt aatgtgatgg ccaaatggct atggacagtc   300
tacctgatat tgacactggc agaaaccatt ttgctgatgc tgggaggtat gagccttttt   360
gatgctgtct gccagtcatt tgctacgacg gccaccggtg gatattctac caagcaggcc   420
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tcgggagtca attttgcatt attcctgatg tgccttcgcg gtaaagtcag tcgtcttttg   540
agggacgaag aattacgttg gttcctcggt tctgtcgcta tcctgacttt tctgatcact   600
ttcgcactgg tctttcaaaa tcattatgac tgggagacgg ctttccgtaa gtcgctgttt   660
caggtggcta cggcacatac ttcttgcgga tttgccacag acgactataa tctttggcct   720
gcctttacgt ggttgttgtt gctgattgcc atgctctcgg gaggatgtac cggttctacc   780
agcggtggta tcaagaacat gcgtttgctg attattgccc gctctatccg gaatgaattc   840
aagcatttat tgcatcccaa tgccgtattg ccggtaagag tcaacaagca gagcgtttca   900
ccttcgattg tgtctactgt gggtatgttt tttgcttttt atcttatcat cgtcattctt   960
ggttgggcag ttctcctgtt cttgggtgtc ggcttttccg agtccatcgg tacggtgatc   1020
tccagtatcg gtaatgtggg accgggattg ggatcttgtg cccagccta ttcgtggaat   1080
ggattacccg acgctgccaa gtgggtactt tcatttctga tgctgatagg acggttggag   1140
ctctttagtg tacttttgct tttctatccc ggattctgga aagttga     1188
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<210> 3331
<211> 753
<212> DNA
<213> B.fragilis

<400> 3331

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cttctttatt ttttatgtga tatagcatta gttcctttag aactatggta tattgctgct    60
tctgtagctc ttgttttgat tgtcggtgga ctttggatgc atttaaatga aggtagtacc   120
ccgatggata aatatattga aattacagct cagaaaagca gaatgtattt attaccagat   180
agttcgaagg tctggatgca gccgggaagt tctatacgtt ttgccgaaga tttcaagaag   240
catcggaatg tatggctgaa aggtaattct ttgttcgaag ttcacaaaaa tatgggtaga   300
aaatttaggg tgtatatcga taaagccttt atcgaagtga aaggaacttg cttttttgata   360
aagcagaaca atcccagtgc caatgaaatt actttgtttta atggaagcat tgaatttaat   420
gttgaatcga ctcaacataa aatagagatg aaaccacttc aggaattggt atataatcct   480
gctgatgcag ggactcaatt aaggcaaata gaaaatatag agtggcaaaa cggccgttat   540
aattttacac aatttaattt ggaacatttg actaggatta taaaccaaat gtatggttca   600
cgtatcatta tcagcgataa agtgaataaa aattgtgcct ttacagggag tatccgctat   660
gatgagtctt tggaagacgt tattgataaa atttgtttta gcctgaatct tcggaaaaaa   720
gaaataaatc acgagattat tatttacaac taa                                 753
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<210> 3332
<211> 951

<212> DNA
<213> B.fragilis

<400> 3332
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gatattttgc gtattagcaa cgattctgcc gttcaggggc actttatcgg ttctatcgtt   180
tattttcagg agagcataca tacagtgtcc gatgtgccta aacttctggt tattgatgga   240
cagcagcgct tgaccactgt ctctttgctg atagcggcta ttgccgattt tataaaagag   300
aatgcagtag agatagatac cagcttcact aaacttcaga actattatct gatcaacccg   360
gaagaagata atgaattgcg gtataaactt ctgctgaccc ggagagataa agatacctat   420
ataaatttat tgaaggggat tcctcggtcc gaggggatgt cacaacgcat cattgaaaac   480
tatgacttct ttaaaagtaa gataaacaag gagaatgtgg tagctattta tagcggggta   540
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tttgaaagta tgaacagtac gggacttgat ttatcacaag ccgacttgat tcgcaattac   660
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ttatcagtga agacaggtac ctaccattcc tcgtatcgat atggtgtacg atgctttcaa   840
ggcctatgtg ataggggggaa aagctcccga tactatcagc gaagtagtca aagacattta   900
tacttattcc ggatattacg tcaacatggt tcttcacaaa gagccggata a            951
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<210> 3333
<211> 1296
<212> DNA
<213> B.fragilis

<400> 3333
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tcaatcatgg agaaatttga ctccatgctt tcacccgtta tcgactcaac actgggtcag   120
agatgcagca gtatcttcgg atatcagttc agcgagatag tccgttcgct gatgagcgtt   180
tatttctgtg gcggctcatg cgtggaagat gtaacgtcac aactgatgcg ccatctctcg   240
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gaggaatacg atgttgactt tgaccatcag ttccttgaaa cggagaagta tgatgcaaaa   480
ccgacctaca aaaagttcct cggctacagg cctggcgtat atgttatcgg tgacaagata   540
gtctatatcg agaacagcga tggtaacacg aatgtgcgtt ttcatcaggc agacacccat   600
aagagattct tcgctcttct ggaatcccag aacatccgtg taaatcgctt cagggcagac   660
tgcggttcct gctcgaagga aatcgtcagt gagatagaga agcattgcaa acatttctac   720
atccgtgcca accgatgcag ttcgctctac aatgacatct ttgctctgag aggatggaag   780
acggaggaga ttaacggcat ccagttcgaa ctcaattcca ttctcgttga gaaatgggaa   840
ggcaagtgct atcgtcttgt catccagaga caaagacgca acagtggcga ccttgacctg   900
tgggaaggcg aatacactta ccgttgtatt ctgaccaacg attacaagtc atcgacaagg   960
gacattgttg aattctacaa tctgcgtggc ggcaaggaac gtatctttga cgacatgaac  1020
aacggattcg gttggagcag gctccccaag tcattcatgg cggagaatac tgtctttctt  1080
ctgcttactg cattgataca caatttctac aagaccatca tgagcaggct tgacaccaag  1140
gcttttgggc tcaagaaaac gagtcgcata aaggcttttg tcttcagatt catctccgta  1200
cctgccaagt ggatcatgac tgcaaggcaa tacgtgctga atatctacac agagaaccga  1260
gcttatgcaa aacccttcaa aacagaattc ggataa                            1296
```

<210> 3334
<211> 405
<212> DNA
<213> B.fragilis

<400> 3334
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tttgagattc cggcggcaga tttccaccgg gcggtaggat tttatgaaac agtgttggac   120
atcaaattgg cggtctcgga gtatgaagag gagaagatgg cctgcttcat ggagcagggc   180
```

```
gaagcagtgg gagcggtttc gtgggcaccc gattttctgc cttctgagcg gggaacgctg    240
attcatttct attgcgaaga gatcggcaag tcgctggaac gtgtcctgca gaaaggtggg    300
aaagtcatta cccccgagac ggagattgac gctgaaggca ggggacattt cgctgttttt    360
gccgatagcg aaggaaacca tatcggtttg tattcggata aatag                     405
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<210> 3335
<211> 771
<212> DNA
<213> B.fragilis

<400> 3335
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ggtcagaccg taaaggggac gaatttcgta aacttgcgcc aagccggtga tccggtggag    120
ttgggacgtg cttatagcga gcaggggca gatgagttgg ttttctcga cattacggcc     180
agccacgaag gtcgcaaaac ttttgccgag cttgttcggc gaatagctgc caatatcagt    240
attccgttta ctgtcggggg agggatcaac gagttgagtg atgtggaccg cctgctcaat    300
gccggtgccg acaagatttc catcaactct tccgctatcc gtcatccgca gttgatcgat    360
gatattgcca agcatttcgg gtcgcaggta tgtgtgcttg cggtagatgc caagcagact    420
gagaacgggt ggaagtgtta tctcaatggc ggacgtatcg aaaccgacaa ggaattgacg    480
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cacgatggag tgaagaccgg atacgccaat gaagccctgg cggagctggc ttcccaactc    600
tccatacccg ttatcgcatc gggcggagca ggccggatgg agcacttccg cgatgctttt    660
acacttggta aagcagatgc cgcactggca gccagtgttt ttcacttcgg agaaattaaa    720
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<210> 3336
<211> 561
<212> DNA
<213> B.fragilis

<400> 3336
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ttcaccgcct ctatggatat tgaggaaatt gtgcaggaag tatttgtgaa agtatgggaa    180
tctcatcatt tcttggatga aaacaaaagt tttgaaggct acctctttat cataacccga    240
aacgtgatct tcaatcattc acgtaggtat tacaaagaga cagccctcaa aataacagct    300
atacaagcag tcgaagaatc ttatgacatg gagggagagt tggatgccgc cgatttaaag    360
aaatatatcg atgaacttgt tatgcaactc ccccctcgcc aacgagaagt attccgcatg    420
agcagggaac tgcacatgag caacagagaa atagcagaac acttctctat tactgaaaaa    480
gcaatagagc gccatatcaa tctggccctg aaattcctca aaaagaacct caatttattc    540
atgttgttta tggcagctta a                                              561
```

<210> 3337
<211> 252
<212> DNA
<213> B.fragilis

<400> 3337
```
gttcctgagc aacaaaaagt tgcccaggat tttgccatgt cagaattttc acttatctta     60
gtgttgcaaa aagaaaacaa gcaaaactct aatatgacat ggcaaaaata caaattaaat    120
ctgagaaact cacacctttt ggaggaattt tttcaatcat ggagaaattt gactccatgc    180
tttcacccgt tatcgactca acactgggtc agagatgcag cagtatcttc ggatatcagt    240
tcagcgagat ag                                                        252
```

<210> 3338
<211> 585
<212> DNA
<213> B.fragilis

<400> 3338

```
aatgaattta aaaccattac agtaatgatt aaacaaactg ctgagatatt tgaaatattg    60
agtaaaggag gatttatctc ttccgatagt accaatccca acatccggca actttatacg   120
gtgattgaag acaaccagtc ggagttgtac gacttctttg ccgccatcaa cttcgtgctc   180
gaaagcggaa acgaatacta ttatttttcc cgtcgcgaga ataaagtcga cttggaacgt   240
aagttggaga ttgctgtccg ttggattgat gtactcgact ttatcaagac ttatgatgcg   300
gccttttcat ccggattccg ttttcagccg gccgatatgg ttgtgaaagt gggaaccgac   360
ttagagttga aagagaagct taccggcctg aaaaagctta ccggacggga aaagcatgaa   420
gagatgattg acaaaatagt aaacgacctg aaacgtgacg gctttattga actggaaaat   480
gagattactt ccacctataa ggtagtggcg gctttcggct atctggaaga gttggtcgct   540
tgcattaaca taccagaaga gatacagaat gagatacctg aataa                   585
```

<210> 3339
<211> 618
<212> DNA
<213> B.fragilis

<400> 3339

```
tataactata aaaacaaaag aataatgaaa caagaagtat tatttatcat tctcaacgaa    60
tatgccgatt gggagagtgc tttcgtagca gcatcccttc attccggtct gatgccgggc   120
agtgaaatca agtacatagt caaaacagta gcccccactt tagatgcggt ctgctctttg   180
ggtggtttcc gtactctgcc ggactacagt ttcgacaacc ttccttccga ttataccgcc   240
ttggtcctaa ttggtggtat gcaatggcag tctgccgaag cagaacgtgt atttcccatc   300
gtgcaggatg ctttcgaaaa agggaaagtg attggcggca tctgtaacgc tgcttcattt   360
ttgtgcgccc atggtttcct gaacaaggtt aaacataccg gaaacaccct tgccgtgctc   420
aaacaatggg gcggggaacg atataccaac gaggatggtt acctggaaaa gcaagctgtc   480
ggcgataaga acatagttac ggcaaatggc accggttatc tggaattcac ccgtgagctg   540
ctattagcat tgaaagccga tacgcaggaa aagatagaag cattttatga tttcagtaaa   600
aatggacttg tgagatag                                                 618
```

<210> 3340
<211> 3381
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (2997),(3209)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3340

```
agcatgaaca agtttttatt ttcttgtcag aagcggtgtc tcaaatacat cgttatggct    60
ttgttgcttt atccgctgtc tgcacttgct gcgcaaggac agattgtggt taaaggtcag   120
tctctcacta ttcctcaagc catccggctc atagaaaaaa gcagtcaata tacttttttc   180
tataacgcta atgatttgaa aaacacaact cttaagagta tcgattgtaa aggttctatt   240
gatgacgtct tgaacgaagt ctttaaaggg agtaatatca gttatgttat taaagggaat   300
gaagttattc ttaaagttga gaaacggaa agtacacaac agaaaaaggc aaaaatcatt   360
ggtatagtaa cagattcaaa aaccggtgaa cctatcatcg gtgcaacagt gcaattactg   420
ggtactacca caggtgtgat taccgatgta gatggtaaat ttgaattagc ggcatttcct   480
aaaaatgaaa tacagatttc atatatagga tatgttacca agaaagttaa agtcggtagt   540
caaaaggtaa tgtctatcac tcttgcggaa gatgcccagc aactggatga ggtggtggtc   600
actgcttttg gtacgggaca gaaaaaggag actatcaccg gatcgattca gtcggttcgt   660
ccttcggatc ttctggtacc ttctgccaac ctttcttctt catttgccgg acgcttgtcg   720
ggtgtgattg cttaccaacg tagtggagaa ccgggacaga attctgcgga cttttttcatt   780
cgtggtgttg caaccatgaa cggagcgact tctcctctaa ttattttgga tggagttgaa   840
gtatccaaag cggacttgaa ttcgttggat cctgaagtaa ttgaaagctt ttccgtattg   900
aaggatgcga cggcatcggc gatgtatggt actcgtggag caaacggtgt acttatcgtt   960
aaaacaaaat cgggaagtga cttggacaga ccgatcatcg gcgtacgttt agaaggctat  1020
gtaaatactc cgactaagaa accggaaatt gttgacggac ccacttatat gcgtttgtac  1080
```

```
aatgaagcgg ttaccaatca gggaacaggg gctgtgctct attctgatga aaaaataaat   1140
ggtacgattc ataatctgaa tccttatatt tatcctaatg tggactggta caaggaggtc   1200
ttcaaagatg cgacatttaa tcaaaaagcg aattttaatg tacgtggagg tacatctaaa   1260
attacttatt ttatgaatgt caatatgaat catgaaaccg gaatgttgaa agatcgttcc   1320
agtgacttct tctcttataa aaataatata gactacatga aatatgcgtt ccagaacaac   1380
gtggattttc atctctctaa gtcttctacc atttcgcttc acctgaatgt acagttgaat   1440
gatatgcatg gtcctttgac aactaaggat ggtaatggcg taggcgatat attcagtgct   1500
attatgggaa ccaatcctgt tgattttccg gttatgtttc cgcagggatc taacacatgg   1560
taccattggg gaggtatcct tgccggaaat tatcagccgc tcaatccggt agctctttca   1620
agtgcaggct acaaggatac gtttgagagt acggtagtag ccaatgtaaa ctgggatcag   1680
aaactggatt ttataacgaa gggattaagc ttcagagctt tggtttcatt taagaattgg   1740
agttataatc agaagttccg tctgcaagga tataatagtt atcagctttc cgattataaa   1800
cagaatgaag acggttccta tgactttacc aatacaccta tcggagaacc gagtaatcat   1860
acgatggatg cctttttcgg taccaacggt gaccgtcggt tttatattca gggatacctg   1920
aattacgaac gttcgttcgg ttcgcacaat gtaagtggta tgttgcttta taaccaggat   1980
gattataata cgaatgtaaa cagcagtctt attgcttcgc ttccaaaacg taaaatgggt   2040
gtggcggcac gtttgtctta tgattacgat catcggtata tgcttgaagt aaatgcgggc   2100
tacaatggtt ctgagagttt tgccaaaggg catcgttggg gactgttccc atccatatcg   2160
ttgggatgga atatcagtga agaaaaattt tggaaaccga taaaaccggt tatttccaat   2220
tttaaagtcc gcggttcgta tggtttggta ggtaacgatc aaatcggcag tgaccgtttt   2280
gcttatctgg caatcgtgaa tttgactgaa agccgtctt atacaaccgg atatggtggt   2340
agtaccactt cattatcagg acctacttat aatcgattcc agaataatga acttacgtgg   2400
gaagtcggaa ataaactgaa tgtgggtgtc gatttacagc tcttcaattc attaaatatc   2460
actgtcgacg gattcaggga gattagagat aatattttc agcagaaaaa ttccataccg   2520
aattatctgg gaactgccag tactaaaatc tacggcaatt tcgctaaagt gaagaataca   2580
ggatttgacc ttgctttgga ttatggaaaa cagttgaacc ggaactttc tatccagatg   2640
aaaggaactt ttacctatgc acacaatgag gttttgaagt atgatgaagc ggcaggactt   2700
cgtccggcat tatcgcaggt tggaaagagc ctgaactcaa tctggggata tgtagcagac   2760
ggattgtata ttgatgaagc tgatattgcg aataatcctc agtcgactat cggtaatatt   2820
gctattgcac cgggcgatgt gaagtatgta gatcagccgg acgcgagcgg taattatgat   2880
ggaaaaataa catcagatga cagagtggta ttaggatatc ccacaattcc ggagataata   2940
tacggatttg gtccctctat tacatggaag aattgggatt tctctttctt ctttcaggaa   3000
caagcgcgcg tgtcatttat gatgagcggt ttcgaaccat ttggaacgca aagtaaaaat   3060
aatgttctga aatggatttc cgatgatcat tggagcaaag ataatcagaa cccgaatgca   3120
cggtatccgc gattgacaca atataataac aacaacaata cggcgtcttc ttcttattgg   3180
gctgcgaatg cttcgttcct gaaattgcng aatgccgaaa atcgctatcg tttcaaatgg   3240
gcaagaatct atgtgaacgg aagtaacttg ttgacctttt ctccatttaa gctatgggat   3300
cctgaaatgg gtggaggtgc cggtatgaaa tacccgacac aacgtacata taatgttggt   3360
attcaattaa cttttaaata a                                             3381
```

<210> 3341
<211> 309
<212> DNA
<213> B.fragilis

<400> 3341
```
cagagattaa aattgagcaa aaaccgtatt gatcaggaaa agagagtagt agagttgatg   60
atccgccttt actgccgtaa aaaagaaaag aatgtcacgc tttgcccccg gtgcgaagag   120
ttgttgcact atgcacacgc ccgcctggac cactgtccct tcggggagaa aaagaaagca   180
tgcaagcagt gcagcataca ctgctacaaa cccgccatgc gggaacagat gagacgggtg   240
atgcgctttt ccggtccccg gatgctgatt tacgctcctt gggaggcaat caagcatctg   300
ttgggatag                                                           309
```

<210> 3342
<211> 270
<212> DNA
<213> B.fragilis

<400> 3342

```
cacaaaataa atctaaatat aattattaaa atgaataaaa gtaacaaaga aactaatctg    60
atcaagaagc tattggcaga tcaattggac aagaaggaac gcaagaaact ctattattca   120
aatttaatag aaaaacaaat gagaaaacaa tggaaagaaa ataagaatac tccggtagaa   180
aatgagattg gaaataagat atgggacaag atcgagaacc aatgcataaa agttcacaaa   240
agaatagttc ctttagaact tatccaataa                                    270
```

<210> 3343
<211> 291
<212> DNA
<213> B.fragilis

<400> 3343
```
cctattaaaa acagaaaaag aatggaacag aaattttgcc agagctgcgg catgccgctc    60
aacccggaag tattgggaac agaaaaggat ggtagcaaaa acgaagagta ttgcacctat   120
tgttatgccg acggacattt caccgtggaa tgcacgatgg acgaaatgat taaccaatgc   180
gcacagttcg tagacgaatt caataaaggc tcggaagtga aaatgacgaa ggaagaggcc   240
attgcaaaca tgaagcaatt cttcccaatg ctgaaaaggt ggaaacagtg a            291
```

<210> 3344
<211> 864
<212> DNA
<213> B.fragilis

<400> 3344
```
aaatcaatga agtcttcacg aaacacttct acctccggca aacccgcttc cggtcgtcgt    60
acaccggcac ggaagacgaa agcgaaaaag aaaactaccc gcaccatgcc cgtttggatg   120
cgcaataccc ttgcgcttat tgtggtcgga gtattttctc tcactttcta ttatttcgtt   180
atccgtcctt attcttatcg ttggaaggag tgctacggac ggaaggagta tggcgtttgt   240
atcccttgtg gctatgaggt gcatggcatc gatatctccc attatcaggg gaacatcgac   300
tggaaggagt tgaaacaaaa cagagaaacg gattttccgc ttcactttat ttttatgaaa   360
gccaccgagg gaggagatca tggtgacgat actttcaaag acaacttcga acaagcacgt   420
cgctatggct ttattcgtgg ggcctaccat ttcttcactc cacgtacgga tgccttgaag   480
caggcggact tttttatccg taccgtgaaa ctcgatagtg gagatttgcc tccggtgctc   540
gatgtcgaac tgacaggtaa gaggcctaaa aaagagttgc aacaaaatat taagaaatgg   600
ctcgaccggg tggaggcaca ttatggtgta aaacctattc tctacacttc ttataaattc   660
aagacccgct atctggacga ctcgcttttc aatgcttatc cctactggat agcccactat   720
tacgttgatt cggtgaggta cgaaggtaaa tggcacttct ggcagcacac tgatatcgga   780
agtgtgcccg gtattcatca cgatgtagat ctgaacgtat tcaacggttc gctcgaagag   840
ctgaggaaga tgacgatgag atga                                          864
```

<210> 3345
<211> 414
<212> DNA
<213> B.fragilis

<400> 3345
```
tatacaatga aatcattaaa cgaaagagca gcagatttgc tgcaaggttg tgaaacggta    60
atactcagtt cggtcaatca agagggatat ccccgtcctg tccctttgag taagattgct   120
tcggaaggta tttctgagat ttggatggca accggggaac attctgtgaa aacgaaagat   180
ttccggagca acccgaaagc gggtctttgt ttctacgaac aagggaatag cgttgccctg   240
accggtgaaa tagaggtagt gacagatgcc ggactcaaac agaagtattg gcaagactgg   300
tttatcgccc atttcccaaa gggaccgact gatccggaat acgtttact gaagttccgt    360
tctgagcatg ccacgttctg gatcgacgga caattcgtcc atcggaacat ttaa          414
```

<210> 3346
<211> 909
<212> DNA
<213> B.fragilis

<400> 3346

```
agagaaatga agatgaaaaa aatattgctt ggcctgtgtg tgatactggg cctgataaat      60
atgatcggct gctccagcga tgagaagtat cccatgccga cctctataga tcagaattca     120
ctgtcggctg aagccaaagc cggtgctatc aaattgaaat ggaccgtacc agccgattct     180
aattattatt atgtaaaagt gacctataca ttacctgaag acgggaagaa atgtatgaga     240
ttggcaagtg tgaatagtga taccatgttg gtggacaatc tgctgcatcg gtatggtgac     300
attaacttta cattgcaacc ttgcaatcgt gccggggaag cttcgcaaag ttgcagtatc     360
atggcacagg cacttcctgc tctgaaacag atcaagactg accggaatcc tataaccttg     420
tctgcaaaac agttgtatac agatgatcag gagagtagtg aaggacctat cgcaaacctg     480
gtggatggaa ggaatgacac ttatttccac atgtcatgga gcagtcctac gcctttccct     540
cactatattg tggtcgactt gggtgaagag aatgctttgt ccactttcct gttctcttat     600
gtttgtcgtg acaataacaa taaagacaat cccaaagaga tggatattct gggcagcaat     660
acttttgatg gaaagaatta tgatgagagc cagaccactt tgttggcgtc tttgagtaat     720
ttgcctaata caaaagctgc gtcttacgaa tcggatataa taaaagccgg tgcatcttac     780
cgctatcttt ggtttaaggt gaaatcttct acaagcggct ccaactggat tgcgttggca     840
gaactcggcc tttcgaaggt aattgtgaaa acctatgatc cggaaaccgg agaaactacc     900
attgagtaa                                                             909
```

<210> 3347
<211> 1083
<212> DNA
<213> B.fragilis

<400> 3347

```
aaagaatcag actcctatat gatgacatta aacgattttg agaactacgt cccctgtaaa      60
atatgggcac ggggagaaga atattacgaa tgtgatgctg taaaagatct ggaagaaaca     120
gaaccgggag aatggatagc cactgtagag gggacggaag attatgaagt ggaaatctca     180
ctggaaggga aaaaaataat tcattggtct tgcgactgtc cttacgaagg agatatatgc     240
aaacatgtgg tagctacagt attagccatc cgcaacaatc ggtccggaca aaaacgtttt     300
ttatccgccc gggaagctaa gttgatggaa aaacaacaag caactctaaa ggataaaaag     360
gtagaagata ttttggcctt tgtaccttcc gaccagctat cggatttcgt actggagtat     420
gcttccaaac atacggaatg taaacaggca cttttggaga aattccttcc aaagcctcaa     480
gctaatggta aatcccctaa aaactacggg aacgacatcc ggaaatgttt taatgattcg     540
tatgttgaaa ccaaaggcag atatggggga tattatgaac cgacaatgga ttggaataaa     600
gtgggctgtg agttgaacaa atatctgaaa aaggctaaac tgcttgttga acaacactgt     660
tttgaagatg ctgctgcaat cgcaaccggt atactccggg ctatcggcga aaattacata     720
gaagaggact tggtatacca taatgaattt gaggcaaact tctattgcga atgctctggc     780
gaactgttat tggaaataat ctatcgtccc gaaataaccg gctcacagaa gataatgatc     840
ctgaatgaag taaggcaaat agaaaagctt gacacttaca gggagtatga cgtgtatgat     900
attgatctgt tactgagtca gataacgata gcgacacaaa cccaggaaga ggctttaacg     960
tatataaacc aattgataga ggaaaggaaa tcaagctggg agctttataa gcttattgaa    1020
aagaaaatta atatatcctt aattccgcaa cactataatt taactttatt tataagttcc    1080
tga                                                                  1083
```

<210> 3348
<211> 267
<212> DNA
<213> B.fragilis

<400> 3348

```
aaaatggaag aatatgaagt aattcaccgc ccggagcgga atcgttttga attggagaag      60
aatggaatga ctgcctttgt ggaatatgaa gtcgaagatg gagcactgga tattatgcac     120
actatcgtac ctcctccctt ggaaggaaag ggaattgcgg ccgcactggt agaagcgact     180
tataaatatg cctctgcgca ggggttgaag cccaaagcaa cgtgttcgta tgccgtcgca     240
tggctgaaac ggcatccggc ggaataa                                         267
```

<210> 3349
<211> 222
<212> DNA

<213> B.fragilis

<400> 3349
aaagtgagag aaaatactcc gaccacaata agcgcaaggg tattgcgcat ccaaacgggc   60
atggtgcggg tagtttttctt tttcgctttc gtcttccgtg ccggtgtacg acgaccggaa   120
gcgggtttgc cggaggtaga agtgtttcgt gaagacttca ttgattttta ttcttattta   180
gagtttgatt caccacagat tacacggatt ttcacagatt aa   222

<210> 3350
<211> 705
<212> DNA
<213> B.fragilis

<400> 3350
cgactcatgg acgaaacact gattcactat accgatgtag agatacatca gcaggaactc   60
tgtgtgctga gcgaagttaa tttgcaactg cacaagggggg agttcgttta tttggtgggt   120
aaagtgggct ccggcaagac cagcctgctc aaaaccctct atggcgagct cgatgtgact   180
gccggtgagg ccgaagtgct cggttatcgg atgacatcca tcaagcgcaa gcacattccg   240
cagttgcggc gcaagctggg cattgttttt caggatttcc aactgctcac cgatcgtacg   300
gtgaacgata atctggagtt tgtgcttcgt gccaccggat ggaagaataa acaggaaatc   360
aaggaacgca tagccgaagt acttaacctt gtcgggatgg agaataaggg ctataaactg   420
ccaaacgagc tttcgggcgg tgagcagcag cgcatcgtga tagcgcgtgc catgctcaac   480
tctccggaga ttatcctggc ggacgaacct accggaaacc tcgatgtaga gaccggaaaa   540
gccattgtag agttgttgca taacatctgt cagaccggat cgctggtagt gatgaccact   600
cacaacctcc agttggtagc cgaatatccc ggacaggtat accggtgcgc cgaacatcgc   660
attgtcaatg tgacggacga atttgtgaag aaagaaaata attaa   705

<210> 3351
<211> 210
<212> DNA
<213> B.fragilis

<400> 3351
cggatagcgg aagagttgat ggaaatcttg tcggcaccgg cattgagcag gcggtccaca   60
tcactcaact cgttgatccc tcccccgaca gtaaacggaa tactgatatt ggcagctatt   120
cgccgaacaa gctcggcaaa agttttgcga ccttcgtggc tggccgtaat gtcgagaaaa   180
accaactcat ctgccccctg ctcgctataa   210

<210> 3352
<211> 387
<212> DNA
<213> B.fragilis

<400> 3352
ctatttactt gtactttttc tttccgtttt ggcacgatat tggctatatg cctttcgcaa   60
aaaaaatcgt gtgttatgga agaatacctg tcggcggaca tatacgttag taaacggaat   120
aacagtctga taaacggcaa aatgataggg cgcgtacttg ggatcttact ctttatagag   180
gcgggaatgt ttgtactctg ctccggcata tccgtggttt atggtgaaag cgattacaag   240
tatttccttt atacggcggg tatcaacctc ctgtccggtg cgttactggt gttttatgga   300
cgtggtgcgg aaaatcggtt gagccggcgt gacggttact gcattgagac actctcgtgg   360
gtgttttttca cgctattcgg tatgtag   387

<210> 3353
<211> 774
<212> DNA
<213> B.fragilis

<400> 3353
aaatggactt gtgagatagc tacatattca tcaagcatac gggacaacat gaaaaaagga   60

```
ttcaccatac ttctattttt attctcgctg gcagaagtat atgcacaaac ggaattcacg    120
acttgtctgt ttgactcaag ccggaaccgg atagtgccgg tagctattta tcaaccgcga    180
aaagaaaccc ccaaaacaag agtcattata ttcaaccatg gatatgacgg aaacaagaac    240
gataaatcga accggagtta ttcatatctg actcgttttt tggcagaaaa aggatattat    300
gtgataagta tccaacacga attgtccgat gatcctcttc tggctatgga aggaaatttt    360
atggaaaccc gtatgcctaa ctggaaaaga ggagaagaaa atattctctt tacgatccgg    420
gagtttaaga aactaaaacc aaatctgcaa tgggagaaac tttgtgtgat aggtcattca    480
aacggaggtg atataaccat gctcaccgca acggatcatc cggaactgat aatgaaagct    540
atctcaatgg accaccggag aatgataatc ccaagaacac aaaagccacg gatatacacg    600
ttgagagggt gcgattatga tgctgatccg gatgtagtcc caaccagcga ggagcaaaag    660
aaatttcgaa tagaagttgt gcgactggat ggagttacac acagtaacat gggagaaaac    720
ggatcggcag aacaacacga tcttattaac cgacatatat atattcttaa ataa          774
```

<210> 3354
<211> 186
<212> DNA
<213> B.fragilis

<400> 3354

```
tccattccac gaataggctg ggccacaaga tcccaatccc ggtcccacat taccgatact     60
ggagatcacc gtaccgatgg actcggaaaa gccgacaccc aagaacagga gaactgccca    120
accaagaatg acgatgataa gataaaaagc aaaaaacata cccacagtag acacaatcga    180
aggtga                                                               186
```

<210> 3355
<211> 198
<212> DNA
<213> B.fragilis

<400> 3355

```
gttaagctta gagcattgat actaagatac aaagaatctg tgttaatccg tgtaatccgt     60
ggtgaaccca aaaacggttc attctccgaa caggcctcaa tccggacggt ttattccgcc    120
ggatgccgtt tcagccatgc gacggcatac gaacacgttg ctttgggctt caacccctgc    180
gcagaggcat atttataa                                                  198
```

<210> 3356
<211> 825
<212> DNA
<213> B.fragilis

<400> 3356

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gatttgattt tcgctttggg cgggataaca caacccgtag gcaacgaagg gcggatcatg    180
ccgtcttgcc gttcgttttt cgtgggaccg atgaaacgct attcggagtt ggtcgcgtat    240
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gacttgcccg tgcaggagtt gggcggtcag cgaatcagta gtgccgactt agggatcaag    360
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attgtttttg cggtaaacca cattcatttg taccacggtc agcgggagat ccgtttgctg    540
gcagaagata cctgtttgtg tcaacggcat ctggaacggc ggttcaagct gtttaccgga    600
tttacccta aagaatacag tcggattgtg aagttcaggc aggcgatcga tctgctgaaa    660
aatacgacgg aggcaaataa cctgctctcg gtagcggtga atgccggata ttacgatgtt    720
tcgcacttct tgaaagaggt caagacgctg tccggcggta cggcagaatc attcctttct    780
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<210> 3357
<211> 735
<212> DNA

<213> B.fragilis

<400> 3357
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gttgccaaag agtttgaggc caacggtatc cggcgtttgc acgtggtgga tctggatgga   180
gccgcttcgc atcatgtggt caactaccgg acactcgact tgatagccag tcgcacatcg   240
ttgattatcg atttcggcgg tgggttgaag agtgatgaag atctgataat tgcttttgag   300
aatggtgcgc agatggtgac cggcggtagt attgccgtca ggaaccctga cctgttttgc   360
cgttggatcg accgttatgg cagtgggaaa atcattttgg gagccgatgt taaagatcgt   420
agaatagctg tcaacggatg gaaagacgaa agtacttgtg aacttttccc tttcttgaaa   480
gattataccc agaaaggaat tgagaaagtg atctgtaccg atatcagttg tgacggcatg   540
ctggcggggc catctttgga tttatacaaa gagattctgg cagagcatcc cactctttat   600
ctgatagcca gtggcggtgt gagcagtata gccgatattg aagcgttgca cgaagccggg   660
gtacctgccg ttattttcgg taaagccctt tatgaaggac gtattacttt gaaagagctt   720
caggcatttc tttaa                                                    735
```

<210> 3358
<211> 183
<212> DNA
<213> B.fragilis

<400> 3358
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accttaccaa gaggattgcg cacggctctc cctgtaggaa aaagtgacga aagattgctg    60
ctcggaggcg tcatctcaaa ctgcttcgac tcatcagaca gattacacat attacatata   120
atagacctga gcaaagataa gcgattctac cggaataacg acctgctttt ggttactatt   180
tga                                                                 183
```

<210> 3359
<211> 1920
<212> DNA
<213> B.fragilis

<400> 3359
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tatatactta tgaagataat atataaactc ctattttttgt ttttgctgac gataggatat    60
agttcctgcg actttctgga tattgttccg gatgaaataa cgactgaggc agatgcattt   120
aaagaccgga atgcggctaa gaattttgtt tattcttgct atggctattt gccgcaaagt   180
aatgtggcat caggcagtct cgatttgctg acaggagatg aagtgataac ggcttttgaa   240
catgaaacgt ttgccagttt tccaaaaggc aactatacgg cttcttcgcc ggtgatttct   300
tattggaata cattttttca aggattgcgt cagtgctata tatttctgga aaatgtagac   360
aaggtacccg acctgactga aagtgtaaaa acagactata tcgcacaggt taagtttctg   420
attgcttatt atcattatca gttggcacgt tgttacggac ctattatcct gatcaaggaa   480
ctaccggatg taaatgcttc gcaagcagaa tatttacccc gaacttcata tgacgaatgt   540
gtagactgga tatgcaattt attggatgaa gccgcaagtt cattgcctgc catacgtacc   600
aataaagaag attacggact ggcaaccagt gtaggagcta aggctgtgaa agcgaaaatg   660
cttttgtatg cagcttctcc gttattcaat ggaaactcaa gtttctatag taattttaca   720
gataaatccg gtagtcagtt aatgcctctg acttatgatc ctaataagtg ggtaaaagca   780
aagacagcta ttaaagaggc gattgacctt gccgagcaga acggacatgc tttgtatgta   840
aagcaagact ataagatagg taatgaggat gcgaatccct atccggcggc aggtcctgtc   900
cggtgtcttc gaaccagctt ggtcgattgg gattcgcgta tccggaggt  tcttctggca   960
gaaacgcgta gtgaaggctc gtatggtata caaaacaaat cgttaccatt tgtgactgac  1020
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aacggtttac cttgggacga agatccggag tataaagata aagacaaatt aaagatcgtc  1140
aatgtggatg ccagccatgc tgacgaggct catgaaggaa gtaaaacact cctgtttaat  1200
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cagcgaccgg gtaactatac tccaagtggt tatctgaaca aaaaaggtgt cgatcctaat  1440
actgttgttt ctacaaatgc tacgaaattg aatcagtatc cctggcccat tattcgtctt  1500
```

```
gccgacttgt atttggcata tgccgaagca tgtgtggaga ctaatgatct ggagacagcc    1560
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agtggtgttg ctgcattgga tcagacaaaa ttacgtcaga ttgtacggca ggagagaatg    1680
aatgaacttt atttggaaaa ccagaatttc tgggatatgc gccgttggct gctggctgga    1740
caatatttta atgtcaaggc taaggggttg aatattgctg ctactaccat agaagattat    1800
gcgatagtga agactattga ctttgagcgt aagttcgagg cgccgactca atatctgttg    1860
cccatacctt ctgccgatat taacagaaat gaaaaattag taaacaatcc gggttattaa    1920
```

<210> 3360
<211> 1188
<212> DNA
<213> B.fragilis

<400> 3360
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tcaaacaata taacaatgac gaaaagaata ggaaactcca ggctttacat cctgatattt    60
atagggattg tatcagcatt cggtccgttc gtgaccgatt tttatctgcc ggccctgcca    120
gtgttgagcg aatatttcga tactacggct tcgctggtgc agcttagtct gactttcagt    180
atggtgggat tggcagtagg gcaattaatc ataggtccac tgagcgacaa atatggacgt    240
aaactgcctc taatggtctc attagtgatc ttctgtattt ccacagtagg atgcctttac    300
tcgccggaga tccatggctt tatcttcgcc cgtttgttgc aggggttgtc cggagccgga    360
ggagtcgtga tttccaagtc catagccatt gacctttacc agggaaaaga actaacacgt    420
tttttcgcca tgctgagttc cgtacaggga ttagctcccg tctgtgcccc ggtattgggc    480
ggaatattac tcggagcgat ggattggaaa ggtatcttct ggatattatt ggctataggc    540
atactattga ttgtcgccct gtctgccttc aaggaatcgt tggagattaa gaaacgccaa    600
aaagggaatg tcttttctac attcaaatat tatctgccgg tactccgtaa caggcaattc    660
atgcgctatg tcttgataca agcattcgcc atgggggtca tgttcaccta tatcgcagca    720
tctcccttta ttttccaaaa ccacttcggg acctcacctt ttgcttacag cctctgtttc    780
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gcactaattt tcagtccatc cgtctggatt gtagaaggaa cactgttttt cctccttgca    960
tttttaggat taatccttcc cggttccaca acgcttgcac ttgatatgga acgtaagaat    1020
tcgggtaatg catcggccct gttgggattc ctgatgttcg tgtttggagg gctgctgtcc    1080
ccgttgacgg gaataggcaa tatgctttac tctaccggta tcattatcgt ggcttgctgt    1140
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```

<210> 3361
<211> 318
<212> DNA
<213> B.fragilis

<400> 3361
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ttatatctag taatcgtgaa taccgtttct tttgttatgt atggtatcga taaacggaac    120
gcatcccgaa aacgatggcg tactcccgaa gtccacctgt tgggaatagc cgtagcggga    180
ggttcgttag gtgcgtgggc agggatgtat acgtttcggc ataagacacg gcatcttaaa    240
tttaagtatg gtataccggt aattggggta ttgcaggtgg ggatggcaat ctgtctcctc    300
ttgtcagaat ttacttag    318
```

<210> 3362
<211> 246
<212> DNA
<213> B.fragilis

<400> 3362
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tcaatcagta taattaagat acatcgagag gatatctgga tcagcatcaa atatttacgt    60
cacttaatcg aattgttagt actggccagt aaaaccaagg atgtatcttt tgtgatcagg    120
caaaaagagg aaacacaggg aaatacggtt gaaatatatt ccatcacttt actaaaagat    180
atccatacga accgaacaga ctacgcgatt ctattgaatg tgcccgatac ggttatagcc    240
tattga    246
```

<210> 3363
<211> 744
<212> DNA
<213> B.fragilis

<400> 3363
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ttgcggattt taggtatatt acgttcgctt cgccgggaag aagaggtgca ggcaaccatt      60
gatacgtatc tttatctgcc ggagatcagg aagcatgaag tgcagcggtt catagcaaac     120
cggcaatacg attcagctat tctactgttg gacgaaggca tccgtatcgc ccaaaagaac     180
cggtatttag gaaccatacg ggattggctg gaacaaaaat tatccattta tgaagaaacg     240
aatcaaacag taaacatcat agacttatgc cagcaactgt ttatcagtgg aaatggtgat     300
ataacctatt atcataaatt gaagaaatta atcgctacga atgaatggaa aaagtttcta     360
tccggattga tgaaacaaat aacattctcc ggacatggct atagcgggca atgtaataaa     420
atggatatct atgtggaaga aaaggactat gaaaaccttt taaaaatgtt gtcggatcat     480
cacagttctc tggatatgct gatgcactat tcccaccatt tagataacaa ttattctact     540
gaaatcatgc agctcttcac ggagcaaatc aatcggtatg ccgaaatgaa cataggtaga     600
aatcactatg aatatataga gcaggtattg aaagaaatga aaaagctgaa agatgggaag     660
aaaacagtag aagacattgt aaaaaagttc agaatcgcct ataaagacg tcctgccatg      720
atggaaacac taagtaaatt ctga                                           744
```

<210> 3364
<211> 621
<212> DNA
<213> B.fragilis

<400> 3364
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ataagaacca tggatttaga ttttgataaa atgaacggac tcgttccggc catcatacaa      60
gacaacgaca cccgcaaggt gctgatgctt ggcttcatga ataaagaggc ttacgagaag     120
actgttgaaa ccgggaaagt aacctttttc agccgtacca agaaccgttt gtggaccaaa     180
ggcgaagaga gtggtaattt cctgaatgtc gtttctatta aagaagattg cgacaaagac     240
acgttgttga ttcaggtaaa tcctgtcggc ccggtatgcc ataccggcac cgatacttgc     300
tggggcgaga agaacgaaga gccggtcatg ttcctcaaac tgttgcagga cttcatcgac     360
agacgtcacg aagagatgcc cgagaagtcg tataccacca gcttgtttca gtccggcatc     420
aacaagatag cgcagaaagt aggcgaagag gcggtggaaa cagtgatcga ggctaccaac     480
ggtacagatg accgtttgat atacgaaggt tccgacctga tttaccacct gattgtattg     540
ctgacctcta aaggataccg catcgaagat ctggcacgcg aattgcagat aagacatagc     600
gactcatgga cgaaacactg a                                             621
```

<210> 3365
<211> 1224
<212> DNA
<213> B.fragilis

<400> 3365
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ccgttataca tgactacatt tcattctatt gacgagttgc tgaaaatgat gagccgtgaa      60
caacttttgt tgaaacagat gttcggcaaa cggaaacagc aatccttccg gcgggagtat     120
gcactggaac tgactgaata caaactgcaa cgtatacaga gcctgatcga ccacggagtg     180
cttcgtgaga atggttcgtt tctcgaaatg gaggatatct acctgcactt tttcgagcag     240
gtgctcgaga taaacgagga gatcaatact tcgtttgtta acgagcatat cagctatctc     300
aaagatacca tctcttatta tcagcaagaa aaccatgaga aaaggaagac cacttacctg     360
cgtaccatta agcgtatatt gcgtaacatt gccttgacta ccttgcgtaa tgtcatcgac     420
ctgaagcgca acatcgacag cacattcaag aatgaaccga actatcagat caagaaaaag     480
aaactggtcc gcctggatga aaaacggcgg gatatcgagg cactgatacg agtgagtgaa     540
gaactccttg tcaccgaaga agaccgtttc tttcgccggg ttccggatga tgaactggtt     600
ttggtggtgg ctaacgtacg gatacaactc aatgaatgtt tccataacct gatcgagata     660
cagaagcaaa tcatcagcta cctgaaccgg atagagtatc agaataagat acgggtcaaa     720
atccgtcagc tgaaatatct caaagatcag ttcgaactgg aagaacggac cgatatctgc     780
cgggtgctga tgcagaaaga cagtgtctgg tttgagcctg caccggcata tccgttgcgt     840
```

```
ctctcagtcg aatatctccg taacgacgat gaagtgttag agagtatccg taaggtgata      900
gccacagtcg gcaagcgagc catactggcc cgtaatgtgg ccgacagcat cgctgaggag      960
tcacttgaga cccatatatc cgaagaggct tacatcaacc tggaagaagt gaagaagcgg     1020
tttatgcagg ctgatgggga cttgtttttcg tttgttgccg cttacccttt cacacaagag     1080
gtgtctttttg atgaaagaat cacattctat tgccagatcg tatcccagtt ttacgaagaa     1140
ctccgcatca ccgacgagta tggcaggatg gatggtgtgg aatatgcgtt gatttatccg     1200
gaaaggacgg gagaaatagt ttag                                            1224
```

<210> 3366
<211> 207
<212> DNA
<213> B.fragilis

<400> 3366

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ttgaacataa tagagacaga gcttaatgat tatccacaat ttaaaaagaa agttagtttc       60
catgataaaa ctacaaaatt aaaaaaggaa cttaaaactc tgattaaaac atgggacaag      120
tacacgaagg acttaagaat attcttgttc gtagacgata ttgaccgata ctctgaaaag      180
aaaatcatcc aatcgatcga ttcttaa                                          207
```

<210> 3367
<211> 600
<212> DNA
<213> B.fragilis

<400> 3367

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aacattaaaa tgaaagtagc agttatcaaa tataatgcag gcaacatccg ttctgtggac       60
tatgccttga agcgcttagg ggtggaagca gtgattacat ctgataaaga ggtgctgaaa      120
gctgccgata aagtgatctt tcccgggggtg ggagaggccg agactaccat gcttcatctc      180
aaggagagtg gcatggatcg tttcattaaa gaactccgtc agccggtgct gggcatttgc      240
ctgggcatgc aactgatgtg ccgcttctcc gaagagggga atgtcgattg tctgggtatt      300
ttcgataccg atgtgaaacg ttttgctcct cgaaagcacg aggaaaaagt tccccacatg      360
ggatggaata ccatcagctg cctgaagagt gacctgttca aaggattcac ccgtgatgaa      420
tttgtctatt tcgtacatag ttattatgtg cccgtcagcg aatttaccgc tgccgaaacc      480
gattacatcc ggcctttcag tgccgctttg cataaagata atttctatgc cacccagttt      540
catcccgaaa aaagcggtga ggcgggcgaa agaattataa agaatttcct ggagctttag      600
```

<210> 3368
<211> 1173
<212> DNA
<213> B.fragilis

<400> 3368

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tattattatg atacgaaagt gcttcgcgac acgctggcgt gcgtcaaccg tgaggtggca      120
cgttacgaca atttcagtgt acactatgcc gtcaaggcca atgccaatcc taaggtactg      180
accatcatcc gcgaaagtgg actgggtgcc gattgtgtca gcggaggcga aatccgcgct      240
gccatcaagg ccggtttccc tgccgggaag atcgttttttg ccggagtcgg taaggctgat      300
tgggaaatcg acctgggact cgattacgat attttctgtt tcaatgtcga gtcggtgcct      360
gagttggaag tcatcaacga gttggctgcc gccaaaggta aagttgccaa tgtagctttc      420
cgcatcaatc ccaatgtagg tgcgcatacc catgccaata tcactaccgg attggccgaa      480
aacaaattcg gtatcagcat gcacgatatg gataaggtga tcgacgtggc tttggagctg      540
aagcatgtga agttcatcgg tcttcatttc cacatcggtt ctcagattct cgatatgggc      600
gatttcatag cgctatgcaa ccgtgtcaac gaactgcagg ataagctcga gcccgtcat      660
atccttgtgg agcatatcaa cgtaggcggt gggctgggca tcgattatga tcaccccaac      720
cgtcagccta ttccggattt ggccgacatt tcccgtacat acgacgagcc cctgaagttt      780
cgtccgcatc agactttgca ttttgagctg gacgtgcca tcacgggaca atgcggttcg      840
ctgatttcaa aagtacttta tgtcaagcaa ggtaccaaca agcaatttgc catcctcgat      900
gcgggcatga ccgatttgat tcgtcctgcc ctctatcagg cacatcacaa gatggagaac      960
cttacttccg aagatcctgt ggtcgaaact tatgacgtgg tgggccccat ctgtgagtcg     1020
```

```
tccgatgtat tcggcaaggc tgtcgatctg aataaggtga agcgtggcga tctgatagcc    1080
cttcgttctg ccggtgctta tggcgagatt atggcttcag gttataactg ccgtgaactg    1140
ccgaaagggt acatctcgga ggagttggtg taa                                  1173
```

<210> 3369
<211> 1134
<212> DNA
<213> B.fragilis

<400> 3369

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accgatggtg aaagaaagat tgttgtcctc tcggctatgt cgggcacaac aaacacattg    180
gtggagattt ccgactatct gtacaagaag aatccggaag gtgccaacga gattatcaat    240
aagctggagg ctaaatataa acagcatgtt gacgaacttt acgctactga ggagtataaa    300
cagaaaggcc tggaggtcat aaaatctcat ttcgactaca tccgttcata caccaaagac    360
ctctttacat tgttcgaaga gaaagtggtg ctggcacagg gcgagctgat ctccaccgct    420
atggtcaatt actacttgca ggagtgcggt gtgaagtccg tgttgcttcc ggctttggaa    480
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gcacaattgg atctctatcc ggatgctgaa atttatatca ctcagggatt catctgccgc    600
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ttgatttcca atgataccga aaagggcaag atcaaggctg ttgctgccaa gggtaatatt    960
actgccatta agattaaatc gagccgcatg ttgctggcac acggtttcct ccgcaaggta   1020
ttcgaaatct tcgagagcta ccagacttcc atcgatatga tctgtacgtc tgaggtagag   1080
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<210> 3370
<211> 1341
<212> DNA
<213> B.fragilis

<400> 3370

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aaaaaggaaa tacagatgaa catagcaata agcggggcct ccggttttat aggcaagcat     60
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cgtgaaggca catcggggca tttaattcag gctctgtcac attgcgatgt tatcatcaat    180
ctggcaggag cacccattgg caagcggtgg acaccggaat acaaaaaaga actttatgac    240
agccggatta aggtgacgca ctgcatcatc cgggcaatgg atgcagtaaa gacgaagccg    300
cggttaatga tttccgcctc tgccgtagga tattatccag aggagggtac attcgatgaa    360
tataccaata cccggggaag tggctttctg gcggaacttt gttatgcatg ggagaaagag    420
gcccgccgtt gtccgtcgca gacaaggctg gtaatcaccc gcttcggcat tgtgctctca    480
cccgatggcg gggcgatgga acaaatgctt cgtcccctcc ggataacgcg ggtagccggt    540
gtgatcggtc cgggtacaca gcctttcccc tggattgcta ttcaggatct ttgtcgagcg    600
atggagttta ttatcagcca cgaagaggca agcggagttt caacctggt gactccgcaa      660
caagtttcac agtatgcatt tactcaggca atggcagcac gctatcatgc ctggatgaag    720
gcggtcgtac cgcgttggtt cttccggatg cggtatggtg aggcagcttc cttcctggca    780
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cgctacatgg gtacgtggta tgagatagcc cgtttcgacc accgctttga gagaggatta    960
tcggaggtga cggccactta tacgttgatg cccgacggga cggtccgtgt ggagaaccgg   1020
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cccgatccgt ctcaaccggg taaactgaaa gtatcgtttt tcctgtcttt ttattcagac   1140
tattatgtat tggaattaga tcaggacgaa tacaattatg ctctgatcgg tagcagttct   1200
gataaatatt tatggatact gagccgtgca ccaattttgc cggaagagat taagaagaag   1260
ttgctggatg ctgccacccg caggggatat gatgtgaaga aactgatctg ggtggagcaa   1320
agagaaaaaa aaataatgta g                                             1341
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<210> 3371
<211> 963
<212> DNA
<213> B.fragilis

<400> 3371
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tacccaccgt taaaaaagtt catcgtactg aacgcttatg gaacaacaag catcgatttc   180
tttaatcccc gggcagtaaa ggcactcaac aaagccctct tgataagtta ctacggcata   240
cgatactggg atattcccaa gaattatctg tgcccaccca ttcccgggag agctgattat   300
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acagctgtcc caaatacccg tcaatacagg tgcctggata tcggtgtagg tgccaactgc   420
atctacccca ttatcggtca aacggaatat ggatggactt tcgtcggttc cgatatcgat   480
ccggtttcca ttgacaatgc acgaaagatc gtaacttgta atccggcatt ggctcacaaa   540
atagaacttc ggctacaaca ggatagccgg aaaatatttg aaggaatcat tgctccgaat   600
gaatatttcg acgtaactct ctgtaatcct cccttccaca gttccaaaga agaagcagaa   660
gacggtacgc tacgcaaact cagcagcctg aaaggtcaga aagtaaccaa agcccggctc   720
aacttcggag gcaatgccaa cgaactctgg tgtgagggcg gtgaacttcg atttctgctg   780
actatgatcg aagaaagtcg caactaccgg aaaaattgcg gatggttcac cagtctggta   840
tcaaaagaaa agaacctggg taaactgacc gccaagctga aatcgaccga tatagccgaa   900
catagaatca ttgagatgca ccagggtact aaaaccagcc ggatcctggc atggagattt   960
tga                                                                 963
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<210> 3372
<211> 912
<212> DNA
<213> B.fragilis

<400> 3372
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gattatatca actcacacct caacgaacct ttgcgggtgg aaacactggc acgtgaagta   180
tgcctatcgg agtatcattt ccatcgcatt atgcgggctt acctgcacga accgctggct   240
acgtacatcg cccggcaacg agtggaacgt gcggtaatgt acctgcaaat gaagaatatc   300
cgtctggcgc aagtggcaga gatggtcgga tacgaaacgc cacaatcgtt atcgaaagca   360
ttcaagcagt ttttcggcat atcccccacc gcctaccgca aacggcgtgc agaacgttac   420
gaagaattca gcaccctgaa aaaggagtct ctgaaaccgg aaatcctgac agaaccggaa   480
ttgaagctgg tatatatccg catcatcggg cgttatggtg aagaggaacc ttacatagaa   540
gcgtggagaa aactgagaga ttttctccaa ataaacggtc ttctgactcc ttctacccgc   600
tggataggca tcagctttga cgaccccaca gtaacgaaaa ccgaacaatg ccgctttttac  660
gcttgtgcaa cagtggaaca cgatgtatca ccgcaaggcg cttttggcat gaagacgatt   720
ccgcaggggc gctatgccgt ctacacactc cgcggaagct acagtggttt gcaagaaatg   780
tatgaccgga tttactcgca tccactgcct acagcatttc gtgatgcaac ttcatttgaa   840
gaatatctta attgcgaacc agatatggaa gaaaaagatt acgtgacaag aatatatatc   900
cctattgaat aa                                                       912
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<210> 3373
<211> 771
<212> DNA
<213> B.fragilis

<400> 3373
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ggaaagcggt ggttttcctg ttcgatagaa gtgtactgtt gcctattctg tagggttgga   180
ggggagtatt cattctataa gctgattttt gtttttcagt atttcggtca tttgcggctt   240
tatagttgtc ggatttatgt ctccacaaca cacaaaggta agaaaaagaa ttgggatcta   300
```

```
tcttttatcg cttttcattt tcttttcctt ttattatttt tgcatccatt atcttcgaaa    360
cccaataccg cagtcattat gaaaagtata gaagtcgtag cagccgttat cagatctgga    420
ggaaaatatc tttgtgtaca acggggacga actaaatttt catatacttc tttcaggtac    480
gaatttccgg gtggaaaagt ggagaaaggt gaatctttgc aggaagcact tcaaagagaa    540
attatggaag aaatggatta tactattgaa gtgggagaga agcttttgac agtccatcac    600
atctatcctg atttcgaaat aacgatgcac gctttttctat gtcatcctat cggggagcaa    660
tatgtattga aagaacatat tgccgcacag tggctctttc ctggggagat ggtaacattg    720
gactgggcgg aagcggataa accggtagta aaaaagattt cagaacaata a            771
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<210> 3374
<211> 960
<212> DNA
<213> B.fragilis

<400> 3374

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atacagctta ttcactttcc acattccgta ccttgtctta tttttatttc ttatctttgc    180
ctcaaacccc tggacatgaa ttcagatatg aaacgagcca ttatcatcgg agctacttca    240
ggtatcggcc gcgaagtggc aaaacaactt ctcttacaag gctggcgcct cggcattgca    300
ggccgtaggc ttccggcact tgaagcactg caaagcagtg ctccggacct tatagaaatc    360
gcagtcctgg atgtcaccca accggatgca acacccaaac tcaataacct gatcagacgg    420
gtcggaggta tggatctgtt ccttctaagc tccggcatcg gttaccagaa tatggaactg    480
aatccggaca tcgaactgga tactgcccgt accaatgtag aaggattcat gcggatggca    540
gataccgctt tccaccactt ccgtgagcat ggcggcggtc agttggcagt catcagttcc    600
attgccggga caaaaggact gggggtagcc cctgcctatt ctgctacgaa acggtttcag    660
aacacctata tcgatgcgct ggaacagctg gccggaatgc aaaaactgaa catccgcttc    720
acggacatgc gcccgggatt cgtatctacc gacttgctga acgacggaaa acactatccg    780
ctactgatgc ggccggaaaa ggtagccaaa cggattgtac gggcactgaa ccgccaacca    840
acgggtagtg gtgatagact ggcgctatgc cattatcgtc tttttatggt gaatgattcc    900
gcgccggata tggaaacaat tacccatacg gacaggacag aaaccgacag aaaaaaatag    960
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<210> 3375
<211> 1719
<212> DNA
<213> B.fragilis

<400> 3375

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aaagtggcta cacctccttc cgatgcttat atcggcttat cgcttctcga taacggtgag    180
atcagacact ataattatgg agaacaggct gtggcaggta ctgtatatct gtccagtacc    240
gatcatggtt tgacctggaa acgggtgaac cgtcccaaag aaatgccttt tgccgattgt    300
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tgcattcgta cttccggtgg attgacagga ggacgtactc ttacgaaggt ggccgatcgt    420
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ggacaaacct ggggcgaatc ggaaccatcg ccttttttatg gtaccatcac gatgcctact    780
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gtggcggttt ctgatgatga tggaaagact tggaagggtt ttcgcgaact ttacatgaat    960
cccatgcgca atgatatcga ctatgccgtt catggtggcg ggattgaccg tggcgttcat   1020
caggcacagt ttgtagaagt agctccgggt aaggtgctgg catctatcgg tcaacatcct   1080
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gactttaccg actctctttc acaatggagt acattcaact acatgaatgg tatcaaagga   1200
cattgcgctt ataatcgtat acagggttgt atgctcgaac cccatccccg gaaggaaggt   1260
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cggcaagtgc ttcatctgac ttaccggccg gatgcttcac tggtggcaga tacacgtggt   1320
gcggtatgga actttccggc tatgaagaaa ggaacgttca ccgttagttt acgtattccc   1380
gaagggagtc attcggtttc gttgttattg aatgatcgct ggatgaatcc ttcggacacc   1440
gtagcccgtt accagtctat gtacgaactt ccacttaccc gtaagcaact cggagtgaag   1500
gatgatcgtt ggcacgaggt ttctttggaa tgggatttgt tgcagaagca cccgcaggca   1560
cgtgtccggg tagatgggcg gcttcgtccg ttgcgccttc cgctcaagaa caaatctcag   1620
aatggaatta gttatgttca tttcatcgct ccccctgctg aggctaatcc gggtgtttat   1680
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<210> 3376
<211> 3729
<212> DNA
<213> B.fragilis

<400> 3376

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atacagatag acggcaatgt tcactttatc ggtacacagg gagtggggaa aagtacggcg   180
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cgctttctgg gcacgggcta taagaaagaa tatttcattt cacccgaggg aaaagcatac   420
gaagagtggg atcagatacg tgatgcgctt ggcagttttg tctataagag ccgtcgtata   480
gagacgtatg aggagtatcg agacattatt ttcggtaatg gccggggggct tcctccggag   540
tttcggaagt ttgctattac cgaaagccgg cagtaccaga atatacccecg gacgattcag   600
aatgttttc tgaactcaaa acttgatgca gagtttatca agcaaaccat tatcatgtct   660
ctgaacgaag aagatgtgcg tatcgatctg gggcagtatg cccatcatct gcgccggttc   720
gatgaagaag tgaccgacat cagtaagtgg ttccggaaaa ataagaacgg tgaggtaact   780
gtccgcaggc aagccgaccg ggtgattgaa ctttatcggg aaatgcatta tctggagcaa   840
caggcccgta cattggccgg agaattgaat tacgcttttc ggacagcgcg ggaagtactc   900
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gtgcagaacg aaaatctgaa aacagcacgg gagcgaaaag aacggtacga atcgcaggat  1080
attcatcatg tacgggaacg ggtgaatgcg gagtccgaag ctgtgcttca caagcaaatg  1140
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cgccggtggg aattggatca gactgcctgt gagcagcagt tcactgcccg ccaaaaggat  1620
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gttccggatg ccggtcaaga ctctttctat ggcattaaac tcgacctctc ggctatccgt  1860
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tttattgacc aacatcgtcg cctggtctac gattacgaga aggacaagag agaattcttt  2520
gaccggatgg acgaattcag aaacgaaaag cagttggccg agaaagaact ggaaggcgag  2580
aaagaaagt tccgtttgaa agaggaagaa ttgaatctga aaatgacggg actgaacaag  2640
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cagttccgta ttgtggagaa cgacaacgat agcggatggg tggagaaact ggcaaacgtg   3420
ggttccgacg gaacggatat cctggtgaag gccatgatta atatcatgtt actaaatgtg   3480
tttaaggaga aagcatcgca tcagttcaac gactttaagc tgcactgtat gatggatgaa   3540
atcggaaaac ttcaccctaa taatattaag gggattctgg actttgccaa taccggaat   3600
attatcctgg tgaatagttc gcccacctct tatcgggcaa gcgattataa atatacttat   3660
attctgaaca aggataagcg gaacatcaca agtgtgacac ggctgataaa gcaggaagtg   3720
agggaataa                                                          3729
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<210> 3377
<211> 207
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (178)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3377
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aagaagtacg gaaccgttac cgtcgacaag gatatgtgta tcatctgtgt cgtgggtgac   120
ttggaatggg agaatgtagg tttcgaagcc aaagcgctcg atgccatgcg tgacatcncc   180
gtgcgtatga tttcgtttgg cgggtag                                       207
```

<210> 3378
<211> 336
<212> DNA
<213> B.fragilis

<400> 3378
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cactttgatg caacagaaca attgcaggct ttcattcaga agaaagtgtc taagttggaa   120
aaatattacg aagatataaa gaaagtggag gtgtcattaa aggtagttaa accagaagct   180
gcggagaata aagaagccgg cattacagtg ctggttccga ataatgattt tcatgcaagt   240
aaaatatgcg atacttttga ggaagcagtc gacttatgtg tggaagcatt ggaaaaacag   300
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<210> 3379
<211> 525
<212> DNA
<213> B.fragilis

<400> 3379
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agtgaattga gaagagcttg tttcaaggct gacatcaaat tgatggtagt caagaataca   180
ttgcttcata aagcacttga aagcattgaa ggtgatttct ctcctcttta cgattctttg   240
```

```
aaaggtacaa cagctgtgat gttttgcaat gttgcaaacg cacctgctaa actgatcaag      300
gataaatcta aagatggtat tccgggactg aaagccgcat acgcagaaga aagcttctat      360
gttggtgctg accagttgga tgctctcgta gctattaaga gtaaaaatga agttattgcc      420
gatatcgttg ccctgttgca atcaccggcc aagaatgtta tttctgctct tcaatcaggt      480
ggcaacaccc ttcacggagt tctcaaaact cttggtgaaa gataa                      525
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<210> 3380
<211> 591
<212> DNA
<213> B.fragilis

<400> 3380

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ggagaaaact gttttctggc cgataacgcc accatcatcg gcgatgtaaa aatgggacag      180
aattgtagca tttggttcaa caccgtgttg agaggagatg taaactcaat ccgcatgggt      240
gatggagtga acatacagga cggaagtgtc ttacacactc tttacgaaaa atcaaccatc      300
gaaataggca actatgtatc ggtagggcac aatgtgacaa tccatggtgc aacagtaaag      360
gactatgctt tgatcggcat gggatcgacc ttgctcgatc atgcagtcat tggcgaaggc      420
gcaatcgttg ccgcaggctc acttgtactg agcaatacca tcatcgaacc gggaagtatt      480
tggggaggtg taccggccaa gttcataaag aaggtagatc cggaacaagc taaagaactg      540
aaccagaaaa tagctcacaa ctacctgatg tattctgact ggtataaata a              591
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<210> 3381
<211> 1782
<212> DNA
<213> B.fragilis

<400> 3381

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tggaaatcaa gagagtggat atcaggattt accggctcgg caggtacggt agtgattact      180
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cagggaagcg gtatcgatct atacaaagag atgttaccgg aaactccaag tatcacaaaa      300
ttcctttccg acgagctaca gccgggcgaa tccgtaggta tcgatggaaa aatgttctct      360
gttgaacaag tagaaagtat gcaagcggaa ctttcagcaa agaacattca gattgtgttc      420
tgtcccgacc ccatggacga gctttgggaa aaccgaccgc ccatgccgga gtctcccgct      480
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gaagaaaaaa cagattatac attggttctg aaaggacata tcgcactggc gatggccgta     1320
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acactggtat gcagcgccgg tgaaggcctg ttcggtgaat acctgaagtt cgaaacaatt     1620
acgctctgcc ctatctgcaa gaagggaatc atcaaagagt tattaactgc cgatgaggtc     1680
gactggttga ataattacca ccagcaggta tacgaaaagc tgtctcccaa gctgaacgaa     1740
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<210> 3382
<211> 1200
<212> DNA
<213> B.fragilis

<400> 3382
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ttggcaaaga aaggtctttc tgaacttcgt tctttcgatt ctatcgataa tgctcctgaa   180
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<210> 3383
<211> 456
<212> DNA
<213> B.fragilis

<400> 3383
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gagtttttgca agcaattcaa cgccagaacc caagacaaag caggtaagat tttacctgtt   180
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attcagttgc ttgaagtggc taaggtaaag agtggttctg ctgagcctaa ccgtaagaaa   300
gttgccgaga ttacttggga acaggttcgt acgattgctc aggacaaaat ggttgacttg   360
aactgtttta ctgtggaagc tgccatgaga atggttgcag gtacagctag aagtatgggt   420
atcgctgtaa aaggggagtt cccggttaat aattaa   456

<210> 3384
<211> 288
<212> DNA
<213> B.fragilis

<400> 3384
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acagtaccac gacctgtgat agagaacacg tcttctaccg gcatcaagaa aggtttatca   180
acatcgcgcg gaggcagtgg aatccaagta tcaacagctt ccatcagttc cattactttg   240
tcttcccatt tttctacgcc gttcaatgca ccaagagcag aaccctga   288

<210> 3385
<211> 345
<212> DNA
<213> B.fragilis

<400> 3385
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tcgagcctct cctcccgtgc taatatttat gaaatgaaaa aagtagtagc ttatattaaa   180
gaatcttacg acgaacttgt tcataaagtg tcgtggccta cgtattcaga actaactaac   240
agtgcggtag ttgtttttata tgcttccctg cttatcgcat tggtagtgtt cgcgatggac   300
ttctgtttcc agaatttttat ggaaaaaata atttatccac attaa   345

<210> 3386
<211> 231
<212> DNA
<213> B.fragilis

<400> 3386
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aaggtttcat tcactgcaga gcagattcgc gacaacgcga aagaattcat ctctacattg   120
aataagttga aaccgactgc agccaagggt acatatatta agagtatttta tctttctagt   180
acaatgagtg cgggtatcaa aattgacccg aaatcagtag aggaaatcta a   231

<210> 3387
<211> 1233
<212> DNA
<213> B.fragilis

<400> 3387
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gctgcaccat tcagtcgcaa accccggaag atgatgaagg ggcactgggt ggtgtacgat   120
cttcttcgcc aacaggtaga gaaagacgag cgttacattt ggtttcacgc cgcttctctg   180
ggggagtttg agcagggacg tcctttaatt gagagtatac gggagcgata tcccgattat   240
aaaatactgc aaacgttctt ttctccttcg ggatatgaag tccggaagaa ctatagagga   300
gcagatattg tttgctattt gccgtttgat aaacctcgta atgtgaagaa gtttctggat   360
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gaattgcaca aacgtcgtat tcccgtttac agtgtttcgt ctattttccg caaagatcag   480
attttttttca aatggtacgg agggacttat cgaaatgtac tgaaagattt tgatcatctg   540
tttgtgcaga atgaggcttc aaagcgtttt cttgccaaga tcggtatcac aagggtaacg   600
gtagtgggag atacccgctt cgaccgcgtc ctgcagattc gggagcaggc aaaagagttg   660
ccgttggtgg agcagtttaa aaacggtgca tttacttttg tggcaggaag ttcatggggg   720
ccggacgaag atcttttcat cgaatatttt aatagtcacc ctgagatgaa gttgattata   780
gctcctcacg taatcgatga aaatcatctg gtagagatta taggtaaatt gaaacgtcct   840
tctgtacgct atacccgtgc agatgaaaag aatgtccgga aggcggactg cttgataatc   900
gattgtttcg gtttgctctc ttcgatctat cgttatgggg aaattgctta tatcggtggt   960
ggttttggag tcgggattca caatacgctt gaagcggctg tatatggcat tccggtaatt   1020
ttcggaccca aataccagaa atttatggaa gctatgcaac taatcgaagc cgggggagcc   1080
tattccatta aggattacaa tgaactgaaa atattgctcg acagactttt aaccgatgaa   1140
gcattcctga agaagaccgg cacgaatgcc ggtaattatg tcattggtaa ttccggagca   1200
acggagaaag tactgcatat gataaacttt taa   1233

<210> 3388
<211> 927
<212> DNA
<213> B.fragilis

<400> 3388
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gaggatattt cgcagttgcg ggagtttgct caggaaagga tggagaagtt tgatccggcg   180
gaggtgaagc cagaactggt tcgtgagtgg attgtttcac tgatggatca ggggtatact   240
tcaacttcgg taaaccgtaa gctaagttct ctccggtcat tttataaata tcttctcagg   300

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caggagagg  tgagcgtcga  tccgttgcgt  aaaataacag  gaccgaaaaa  taaaaagcca   360
cttccctctt  tcttgaaaga  gagtgaaatg  aataaattgc  tggatgatac  agattttggt   420
gaagggttta  aaggttgtcg  ggatcgtctg  attattgaga  tgttttatgc  tacgggcatg   480
cgtctctctg  agttgatcgg  tctggatgat  aaggatgtgg  atttctctgc  ttctcttctg   540
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aacctttcga  aggtggtaac  gcttaaaaag  cgtagtcctc  acgtgttgag  acatactttt   780
gccacaacga  tgctgaataa  tgatgcggag  ttgggtgcgg  tgaaagagct  tttgggtcac   840
agtagtctgg  cgactacgga  gatttatacg  cataccactt  ttgaagaact  taaaaaagtg   900
tataaacaag  ctcacccacg  agcctaa                                        927
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<210> 3389
<211> 573
<212> DNA
<213> B.fragilis

<400> 3389
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aacagcgacc  ttggcgaata  tgtgtctcag  gtattgattc  ctaccgaaaa  ggtatatcag   180
gttcgcaatg  gtaagaaaat  tgtgaaagaa  agaagttatc  ttcctggtta  cgttttggtg   240
gaggctgctt  tggttggtga  ggtttctcac  catctgagaa  atactcctaa  tgtgataggt   300
ttcttgggag  gttccgataa  accggttccc  ctcagacagt  cggaagtgaa  tcgtatactt   360
ggtacagtgg  atgaactgca  agaaacgggt  gaagacttaa  atgttccgta  tattgtaggc   420
gaaactgtaa  aggttacttt  tggtcctttt  agcggattca  gtggcatcat  tgaagaagtt   480
aatagtgaaa  aaaagaaact  gaaggtcatg  gtaaagatat  tcgggcgcaa  gacgccgctt   540
gaattaggct  ttatgcaagt  ggaaaaggaa  taa                                573
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<210> 3390
<211> 543
<212> DNA
<213> B.fragilis

<400> 3390
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aagtttgatg  cttcattaga  tattgatgta  cgtttaggtg  ttgatccacg  taaagcaaac   180
caaatggtga  gaggtgtcgt  ttcacttcct  cacggtactg  gaaagcaagt  acgtgtattg   240
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cttgacgaat  atattgaaaa  gatcaaaggt  ggatggactg  atattgatgt  gattatcact   360
atgccatcta  tcatgggtaa  aattggtgca  ctcggtcgtg  tactcggtcc  tcgtggattg   420
atgccgaacc  cgaagagtgg  taccgtaact  atggatgttg  ctaaagctgt  aagagaagta   480
aaacaaggca  agatggtcta  tcagagtgca  tcaaagcggt  attgttcata  cttcaattgg   540
taa                                                                543
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<210> 3391
<211> 270
<212> DNA
<213> B.fragilis

<400> 3391
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gcgctgaaga  agtttaagag  aaaatttgaa  aaaactggca  tcgttaaaga  gttgagaagc   180
agacaacagt  ttgataaacc  gtctgtaact  aaaagactta  agaaagaacg  tgcagtttac   240
gtgcaaaaac  ttcagcaagt  agaagattaa                                   270
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<210> 3392

<211> 417
<212> DNA
<213> B.fragilis

<400> 3392
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aaagaagaat atggtattga acctgctgct gcagctgtag ctgttgctgc tggtcctgca   180
gctggtgctg ctgccgcaga agaaaaatct tctttcgacg tagtattgaa gagcgctggt   240
gcagctaaac ttcaggttgt taaggccgtt aaagaagctt gtggtcttgg cttgaaagaa   300
gctaaggaca tggtagacgg tgctcctagt gtagtaaaag aaggtttggc taaagacgaa   360
gcagaatcat tgaagaaaac attggaagaa gctggagctg aagttgaact taaataa   417

<210> 3393
<211> 2871
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (2274)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3393
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accccacctg agaagcgtaa aaaagaggga ttgtataaag tatttgccga aaacttccca   180
attgccgaca caagaaacaa ttttgttctt gagtttctgg actattatat tgatccgccg   240
cgctatacca ttgatgattg tatagagcgt gggctcacat atagtgttcc attgaaagcg   300
aaactcaagc tttactgtac agaccccgat catgaggatt tcgatacagt gattcaagat   360
gtgttccttg gtcctatacc ttacatgact gacaaggcaa cttttgtcat caatggtgct   420
gagcgtgtag ttgtgtcgca gcttcaccgt tctccgggcg tattcttcgg tcagagtgta   480
catgctaatg gtacaaagtt gtactcagcc cgtatcatcc cgtttaaggg atcatggatt   540
gagttcgcta ccgatattaa caacgtaatg tacgcttata ttgatcgtaa gaagaaattg   600
cctgttacta cgctgttaag agctatcggc tttgagaacg acaaggacat tcttgagatt   660
tttaacctgg ctgaagatgt gaaggttaat aagactaatc tcaagaaggt agtaggtcgt   720
aaactggctg cgcgtgtctt gaaaacctgg attgaagatt tcgttgatga agataccggt   780
gaagttgttt ctattgaacg taatgaagtc attatcgacc gtgaaacagt aatcgaaccg   840
gaacatatag atgaaataat tgactcgggc gttcaaaaca tccttattca caaggaagaa   900
ccgaaccagt ccgactactc tattatatat aatacccttc agaaggaccc gagtaactcg   960
gaaaaggagg ctgtgcttta tatctaccgt cagttgcgta atgcagaccc tgccgatgat 1020
gccagtgccc gtgaagttat taataacctg ttcttctctg aaaaacggta tgaccttggt 1080
gatgtaggtc gttatagaat caataagaaa ttgaacctga cgacagacat ggacgtgcgt 1140
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gctcctcaac agattgcttc tatcgctgca tctttgattc ccttccttga acatgatgac 1920
gctaaccgtg cgttgatggg atcgaacatg atgcgtcagg ctgttccttt gctgagaagc 1980
gaagctccaa tcgtaggtac aggtattgaa cgccagctgg tacgtgattc acgtactcag 2040
attgctgccg aaggtgatgg agtgattgat tttgtagatg ctactactat tcgtattcta 2100

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tacgatcgta cagaagatga agagtttgta agttttgagc cggcattaaa agaatataga   2160
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aaaggtgatc gtgtgacgaa aggtcagatt ctgacagaag gttattctac tganaatgga   2280
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<210> 3394
<211> 1788
<212> DNA
<213> B.fragilis

<400> 3394

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aacgaacgtc gtattgaatt ggccggtgaa ggtttccgtg gtgacgatat gactcgttat   1620
agcgatgatt actggaaaga gcacatgaac aatgtaccta tcatgactcc tgacggtgat   1680
acggaactta caatgaaatg gagctctcgt atgcgtctga aaccaattcc gcaaacagct   1740
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<210> 3395
<211> 234
<212> DNA
<213> B.fragilis

<400> 3395

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gctcaaacta ttttggagat gactataaaa ggttatcccg tcaccaaaaa ttttcttaat    180
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<210> 3396
<211> 2007
<212> DNA
<213> B.fragilis

<400> 3396
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gataatgata aaggaggagt tgtttataca cacttgttga caattccgtc aacttatgtt    120
gctcgtcaaa gtaatggtga atggggtagc tatgaaggtg gaaagccggc tgcaacagta    180
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cagaatactt tgataaatct ggctttagat attaaacctg taaaaggact ggtattgaca    300
ggcgaaatga tttataaagc ttgggattat aaatctaaga cttatactgc aaataaaagt    360
aagattaagg atttccagac cggtactgag ttgaatggta cagatgtaac taattctaag    420
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gattatttct cttcatatca acaaggaggt aactacaact ttgaagatgc tattgtttcg    960
ggtatcgtag aatctaaacc tgccaatccg actttaggat gggaaactgt tactatcact   1020
gatatcggtg tggattttga cattttcaat ggactgttga attttacagc cgattattat   1080
aacaaaaaaa cagatgatat cttgttggca tatccgagtc cgaaagaaat cggtattggc   1140
tctgatttca aggtttcaca aaatattggt acagtaagta ataagggttt agaactgagt   1200
attacacata ataaaactct gggtgacttt gcatatacag ttgggtttaa catgagtaag   1260
aactggaata aagtaaccaa cctgggagcg aatgacccga ttattgaaag cccatggatt   1320
aaaaaggttg gttatgcaat cggtactttc tatggatatc gctctgatgg tctgttgact   1380
caggaggata ttgataccgg taattacatc accgatggtt tggtgcctca agcgggtgat   1440
atcaaatatg tagatttaga tggtgatggt aaacttaccg ataaagatag aacttatata   1500
ggttgtgatg ttcctgacat tacttatggt gtgaacctga atcttcgcta taaaggattt   1560
gaattaagta tgttcggtca gggagttacc ggtacaaagg taaacttcag tatggaaaat   1620
gcctgggcat tctcggatta tgcaagtccg cgtaaatatc acttgaagag atggacggta   1680
gataatccta acccgaatgc agcttatcct cgcatttatc ctcgtacaag taaacattca   1740
acttataacc aatatttctc tgattactgg ttgcttaatg ccgattattt ccgcatcaag   1800
aaatataactt ttggatattc tttccaaaag ccggtattac agaagctgag tctggaggca   1860
ttgaaactct atgttgcggc tgaaaatccg tttactattc gtgctgatca ccgtatggaa   1920
gatttcgacc ctgaaacggc ttcaggacgc ggcgttaata ctcgtggtac gtcttcgatt   1980
gcttttggtg taaatctaac attctaa                                       2007
```

<210> 3397
<211> 1218
<212> DNA
<213> B.fragilis

<400> 3397
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gttaaacata atttgaagac aatgaaaaag agcatttaa ttgcagttct gacagcgtcg     60
atagctactt ccgcttttgc acaatggaaa ccggcaggag acaaaatcaa gacaaagtgg    120
gctgagcagg tgaatcctga aaatgtattg cccgagtatc cacgtccggt gatggaacgg    180
ggagagtgga agaacctgaa tggtttgtgg aattatgcca tcaccgagaa aggagctgct    240
ccttcagctt acgaaggtca gattctggtt cctttttgcca tagagtccag cctttcgggt    300
gttggtaaga aagtcggccc cgacaaagaa ctttggtatc agcgtacttt cacagtaccc    360
gcttcctgga aaggtaaaaa agtgatgctg aacttcggtg ctgtagactg gaaagctgat    420
atttgggtca atgacattaa ggtgggacaa cacaccggag gatttactcc tttttcactc    480
gatattacgg ctgctttggc tactaaagga gacaataaac ttgttgtgaa ggtatgggac    540
```

```
ccgacagatc gcggacctca gcctcgtggc aaacaggtaa accgtccgga aggcatctgg    600
tatacggctg ttaccggtat ctggcaaact gtctggatgg agcctgtggc cgaacgtcat    660
attactaatg ttcgtacgac ttcggacatc gaccgtaaga aactcacagt ggacgttact    720
accagtacca gctgtccttc ggaagttgtc gaagtaaagg ttttcgatgg taaacagctg    780
gttgctaccg gaaaaggatt gaacggccag actattgaca ttcagatgcc tgctgatgct    840
aaactgtgga gtcctgcttc tccgactctt tattctatgc agattgccct gttgagcaat    900
ggtaaagtga ccgataaagt agatagctat acagctatgc gcaaatactc tacccgccgt    960
gacaaggacg gaattgtacg tttgcagctg aacaatgaag atgtgttcca gtttcggtcc   1020
tctcgatcaa agatggtggc ccgacggact gtatacagct tcgacagacg aagggggggt   1080
tatgatattc aaaaaaccaa agacttcgga tttaacatga tccgtaaaca cgtgaagggt   1140
gaaccggcac gttggtattc acactgtgat aaactgggta taatcgtatg gcaggatttg   1200
cccaaatggg aaccgtaa                                                 1218
```

<210> 3398
<211> 2076
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (654)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3398

```
aaacacccaa acatgaaaaa gatgaaaagt ctgaaaggag gcttggccgg aatcctattt     60
acagccggat tactggcagc atcgtgtact tccgatcaat catcgtcggc agtaaccatc    120
gtgaaccgcc ccgactgtac acaaaccaac gtaaactatg taggaaaccg cttgccactg    180
aaaccgatga atttcattaa actgcccgtc ggaagtattc agcccgaagg atggttgaag    240
aaatatctcg aattacagaa agacggtctg accggtcacc tgaatgagat cagtgcatgg    300
ctgggcaaag agaataatgc ctggctgacc aaaggaggag atcacggatg ggaagaagtc    360
ccctattggc tgaaaggata cggaaacctg gcttatatat aaaaggatca gaaaatgatt    420
gatgaagcta aagtatggct cgaaggagca ttcgccagcc aacagcccga cggatacttt    480
ggtcccatca acgagcggaa cggaaaaaga gaattgtggg cacagatgat tatgctctgg    540
tgtctgcaat cctattatga atattcaaat gaccaacggg taatcgacct gatgaccaat    600
tactttaaat ggcagttaag tgtaccggac gaacaattcc tggaggacta ttgngaaaac    660
agccgtggcg gagataacct gttaagcgta tattggcttt ataaccgcac aggagatcaa    720
ttcttactgg aactggctga gaagatacac cggaacacag cagactggac ccgcccgtcg    780
gcactgcgaa actggcacaa tgtaaacatc gcacaatgtt ccgcgagcc ggctacctat     840
tatatgatga caggagattc agccatgctg aaagcatctt ataatgtaca caatctgata    900
cgccgtactt tcggacaagt accgggcggt atgttcggtg ccgacgaaaa tgcccgcatg    960
ggttctatcg acccacgtca gggagtagag acctgcggat tggtagaaca gatggcttcc   1020
gatgaattga tgctttgtat gacgggtgat ccgctttggg cagaacactg cgaagaagtg   1080
gctttcaaca gttatccggc tgccgtgatg ccggatttca aaggattacg ttacatcact   1140
tgccctaacc agacggtcag cgactcaaag aatcatcatc cgggcatcga caaccgggga   1200
cctttcctgg caatgaaccc gttcagcagc cgttgctgcc agcataacca cgcacaggga   1260
tggccttatt atgccgagca tctgattctg ctactccgg ataatggtgt agcggccgcc    1320
atgtatgccg cctgcaaagc aacggtgaaa gtgggtgacg gaagcgaaat aagccttcac   1380
gagcagacga attatccttt cgaggaaacc atccggttta cggtaaatac tccgaaagct   1440
gtaagtttcc cgttctatct gagaatccct tcatggacag agggtgcaac tatctttgtt   1500
aacggcaaaa aagtagcggc taaccccgaa gccggacaat atgcctgcat caatcgcgaa   1560
tggaaagaca atgaccaagt ggagattcaa ctgccgatgc aactttcgat gcgtacatgg   1620
caagtgaaca aaaacagtgt aagcgtagac tacggtccgt tgacaatgtc actgaaaatt   1680
gacgaagatt atgtgaaaaa ggacagccgc gctacggcta tcggtgactc taaatggcag   1740
gaaggcgctg acgccagcca atggccgaca tacgagatct atgcaaaaac tccttggaac   1800
tacgcattgg tactcggtaa gaacgaacct ttgaaagact ttaaagtagt acacaaagaa   1860
tggccggctg acaacttccc gttcacggtc gcaagtacac ctatcgaggt aaaagctatc   1920
ggacgcaagg ttccttcatg ggttatcgat caatacgact tgtgtagcga acttcctgaa   1980
atggacgctc cgaaaggggga aaaagaagaa atcaccctga ttccgatggg agcagccaga   2040
ctgcgggttt cggctttccc gaacacaaga gagtaa                            2076
```

```
<210> 3399
<211> 1587
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (194),(1550)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3399
ctctcacgac tggtggccgc gtatggtgat gctgaaaata ctccagcaat attattctgc      60
cacgaacgat caacgggtca tccggtttat gaccgactat ttccgttatc aactgaaaac     120
gttaccggaa aagccgctcg gcaactggac tttttgggca gagtttcctg gccttgcaaa     180
aatatccagg ccgnatactg gctctataat atcaccggtg attcattcct actcgatctc     240
ggcaaactga ttcatcaaca aagtttcagc tttgtagata tggtgaaccg gggagacctg     300
aaacgtatca atacgattca ctgtgtcaac ctggcacaag gtatcaaaga gcctgtcatc     360
tattatcagc aagagcccga caaaatgtat ctcgatgcgg ttaaatgtgc ttttcgtgac     420
attcgccagt tccacggaca accgcagggt atgtatggtg gtgacgaggc attgcatggc     480
aacaatccga cccaaggttc agaactctgc tcagctgtgg aactgatgta ctcgctggaa     540
aaaatggtag agatcacggg agatatcgac ttcgccgacc atctggaaag gattgcattc     600
aacgcactgc ccacccagat ttcagacgat tttatgacaa aacaatattt ccaacaagcc     660
aaccaggtga tggtatcacg ccatcgtcgc aatttcgatc aggatcacgg aggaacggac     720
aactgtttcg ggctgctgac gggatatcct tgttgtgcat cgaacatgca ccaaggttgg     780
cctaaattca cccaaagcct ctggtatgcc actcctgacg gtggactggc tgttacggca     840
tacgctccat cggaagtgac ggccaaagta gcggatgggt gtacggtaac tttcagtgaa     900
gaaacctatt atccgatgga tgacaaaata agtttcaccc tccaatcgat ggacaaaaaa     960
cggaaagaag taaacttcgc tctccaatta cgtatcccga aatggtgtag acaagccgga    1020
atatcagtca acggacaact tcttcaacat gccgaaggag gccggatggc cattgtcaac    1080
cgcaactgga aaaaggggga ccgggtggaa ctccatctgc cgatggaagt cactgccagc    1140
acctggtatg aaaattcggt aaccattgaa cgcggtccgt tggtatttgc cttgaagatg    1200
gaagaaaaat gggagaagaa agagtttgaa gagccgtggt atggtccgta ttattactca    1260
gtgactccta ccgaaccatg gaactatgga ttggttgatt tcaatcgtaa caaagcgaac    1320
gaacatgccc gtgtaacgat tcatacggaa aagcaatctt ccgtattccc ctggaataag    1380
gaaaatgccc cgatagaaat acggatgaaa gcaagattgg taccttcatg gaaactttac    1440
aacgaaatgg cagggcctca accttattct ttctgtagcg gaggcgaaag ggccggaaac    1500
agaaatcacc ctgaattctt atggatgcac tacattaaga atacggaatn tccggtagtg    1560
ggagccttcc gattgagagg tgattaa                                       1587

<210> 3400
<211> 735
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (679)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3400
agcattaatc gaaagacact catgaagaaa aaaatacat ttacatatct gctcatcgga      60
ctgggcctct gcttctcttc cttgggaagc gggctccggg ccgatacccc cgagaactat     120
accaacaacc gctatccatt ggtacgcaaa cctttgatgg aactaccgtt aggcagcatt     180
aaggcaaaag gatggttaca ggaaatgttg gtaaggcaga aaaacggggc aaccgggcaa     240
atggacaaac tgtatccgct ggtgatgggc gaacgcaacg gctggctcgg cggcgacgt      300
gatcaatggg aaagaggacc atactggatt gacggtttac ttcctctggc atatatcctg     360
gacgatgcgc aactgaaagc taaagtgcaa ccttggatag aatgggcttt aaaaagtcag     420
cgggaagacg gtttcttcgg tccggccaaa gactatcccg gagaggccgg catacaacgg     480
```

```
gataactctc acgactggtg gccgcgtatg gtgatgctga aaatactcca gcaatattat    540
tctgccacga acgatcaacg ggtcatccgg tttatgaccg actatttccg ttatcaactg    600
aaaacgttac cggaaaagcc gctcggcaac tggacttttt gggcagagtt tcctggcctt    660
gcaaaaatat ccaggccgna tactggctct ataatatcac cggtgattca ttcctactcg    720
atctcggcaa actga                                                     735
```

```
<210> 3401
<211> 183
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (168)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3401
cctttgggcg gaaaaaagtt ttttcattgg aaatgggggt ttaagtcctt tttccccttc    60
catttcaagg cagggaaaaa ggaggacttg tgtatgaata ttaggttatt attaatatgg   120
ttcggaatga ttaatcacct ctcaatcgga aggctcccac taccgganat tccgtattct   180
taa                                                                 183
```

```
<210> 3402
<211> 1116
<212> DNA
<213> B.fragilis

<400> 3402
cagaaagcta tgaaaacaaa gatctacctg ctatttatta ctaccttatt cttctgcgcc     60
ggttgtggca acaagagcgg cggacagaaa caggagtcgg taagtgcggc aaaggataca   120
tatgtaaatc ctttgtttcc ggaaggggcc gatccgagtg ctcttttcca taatggtaag   180
tattattata cccatggaac ggaagataag atcatgcttt gggaaacgtc cgatatcact   240
gatatggctc atgcggtttg caagatagtg tggaagcctc acgatccatc caacagttgt   300
catctatggg caccggagat tcactatatc aatgataaat ggtatatata ttatgcagcc   360
gacggcgaca atgcggataa tcaccagttg tacgtacttg aaaactcttc acccgacccg   420
atggagggaa agttcgaaat gaaaggaagt atcataacca atcccgaatg gaattggggg   480
atacaggcca ccactttcga acataaggga gtccgctatc tggcctggtc cggatggccc   540
aaaaggagaa ccaatgccga aactcaatgt atctatattg ccaggatgaa agatccgtgg   600
acactcgatt caccccgtgt cctgatatcc aaacccgagt atgaatggga acggcagtgg   660
gtcaatccgg atggcagccg tacggcttac cccatttatg tgaatgaagg gcctcagttc   720
ttccattcga aagataataa gacgttgatt ctatattacg ctgccagcgg ttcgtggtca   780
ccctattact gtgtcgggat gttgactgcc gatgccgaga gtgatttgtt agatccggct   840
tcctggacaa agagttcggt tccggtattt cagcaatcgt tggagaatga agtttatggt   900
ccgggtggac tctcctttgt tccctcgccc gatgggactg aatggtatat gatttaccat   960
gcccgtcagg tgaccaatgg agacaccggg agtcctgaaa cccgtaatcc gcgaatacaa  1020
aaaataggat gggatgccca tggaatgccc gatttgggga ttccggttcg tgcaggggtt  1080
gccttgccga aaccttcggg tactcttttg aaataa                            1116
```

```
<210> 3403
<211> 2223
<212> DNA
<213> B.fragilis

<400> 3403
tattatgaat caatgaaatt aaattctttt cctcactatc tccagttgga tgctatggat     60
tgcggtcctt cctgccttcg catgattgcg aagtattatg gtaagagcta ctccctgcaa   120
actctccgtg cacgctcttt tattacccgt gaaggagttt ccatgctggg catcagcgat   180
gcggcggaat cgatcggttt ccgtacttcg ggggtgcgca tctctttgga gcaactgaag   240
aaggatgtac cgttgccttg cattctgcat tggaaccaga atcacttcgt ggtctgttat   300
```

```
gatataaaga agaaacgtag cggctaccgt ttctatatcg ccgaccccgc ccgtcagttg    360
atttcgtaca gtgaggagga gtttaagaaa tgctggttgt ctactaaggt gaatggagag    420
gagaaagggg ctgcacttgc gcttgaaccg ggtccggaat tccaagggca gggcgacgaa    480
gaagaatccg gcagtcgcag tcttcgtttc tttcttaaat atttgtctcc ttatcgtaaa    540
caactgattc aactgattct gggaatgctg acagcgagct tgttgcagct tattttccct    600
tttctgacac agtcattggt ggatgtgggt attcgcgacg gtaacctgaa ctttatcact    660
ctgatcctga tttcacaact ggtgatttcc gtttcacaac tttcggtcga gtttatccgt    720
agctggatta tgcttcacat gaatacgcgt atcaatattt cgctgatctc tgacttcctg    780
gcgaagttga tgaagcttcc gctccattat ttcgatacga agatgatcgg tgacattatg    840
caacgtatag gcgatcacgg acgtatcgag agttttctga cgggatcgtc catcagtacg    900
cttttctctt ttgtgaactt ctttatcttt gcttttgtgc tggcttatta caatctgggt    960
attcttgcta tctttctggt gggcaattca ctctatatct gctggattct tgtgtttatg   1020
aagtaccggc gcgaattgga tatccgccgt tttgcccagg cggcgggcga acagagtagt   1080
ttgatacagt tggtgactgc catgcaggag atcaaactga acaactgtga aaaacaaaaa   1140
cgctggcagt gggaacgtat tcaggtgaaa cttttcaaga tcagcgtaaa aggtctggca   1200
ctgggacagg tgcaacaggt gggttctgtc ttttttaatc agactacgaa tattgtcatc   1260
tcttttattg ctgctaaatc ggttgtggag ggaaatatga cgttgggtat gatgatgtca   1320
ctgacgtata ttatcggtca gttaagcggt ccgatcggtt cttttatcgg ttttgcacag   1380
cagttgcagg atgcgaagat cagtctggag cgcctgaacg agattcatgg gcagaaggat   1440
gaagagcagg atattgcctc taagctgacg gttcttccgg aacggcgtga tatacgtatc   1500
gagaatctct cgttcagtta tgacggtgcg gatcgtgact atgtgctgaa tgatgtgaac   1560
ctgaacatac ccgaacacaa ggtgacggcg attgtgggtg cgagcggtag cggcaagact   1620
acgctgatca agctgatgct tggctttat actccgaata aggggatat caagataggt   1680
gagacccctc tggatgtggt aaatccgcac ctctggcgtg cgaagagcgg ttcggtgatg   1740
caggatggct ttatcttgtc tgacacgatt gcaaataata ttgccgtggg ggaggaacag   1800
gtggatgtgg agcgctttcg ccatgcggtg acagtggcca acattcgtga cttcatcgat   1860
tctcttcctt tggggtataa tacgaagatc ggcatggagg gaaacggcat cagccaggga   1920
cagcgtcaac gcctgctgat agcccgcgct gtttataaaa atcctgagtt cctgttttc   1980
gatgaggcga cgaatgcatt ggatgccaac aatgaacgcg agattatgga gcatctgcac   2040
acgttctatc gtggtaagac ggttgtggta gtggcgcacc gtttgagtac ggttcgtgat   2100
gcggataaga tcgtggtgct ggataggggt gctgtagccg aagagggaac ccaccgggaa   2160
ctgacggaaa agaaaggatt gtattatcag ttggtgaaga atcagttgga attaggaagt   2220
tag                                                                  2223
```

<210> 3404
<211> 612
<212> DNA
<213> B.fragilis

<400> 3404
```
aaaaagaata agatggatgc acatatagaa caaatagcaa aatcgcttta cttctcttgc     60
aaacaatttg atataggct atttttatgga aagatgggac gttgcctttt cttttttgat   120
tattcacgtg tcactgaatt gagggcgttt gaggaactgg ccggagaatt gctggatgaa   180
gtgatggaga gtgtctgctt agggatgccg tcggtctgt ctttcggatg gtgtggtata   240
ggttggggggg tggaatatct ggtccggaag ggatttgtgg aagatgatga taatgaaggg   300
cgcaataaga ttgatgagaa agtgatggag tatgatgtca ggcgcttggg cgattactct   360
ttagctacag ggttggaagg aatttcatgg tatgtattgc ttagactcta ttcgggagat   420
aaaggtgtaa ggataggga aaaaaactat ctgtctgatt tgaaaagtgc ttgtgagaaa   480
gctttaaaaa aagggcggta tgagggata cttctgttac tggatttct gaatgggaaa   540
agggcaaatt atcctttcgg ggagttttt tcacaaattc cgggagaagc gcattatatt   600
ccggatatgt ga                                                       612
```

<210> 3405
<211> 672
<212> DNA
<213> B.fragilis

<400> 3405
```
tatgtcatga aagatattac aatgctaaac aaaccaccat tagacttctt cggatgcaac     60
```

```
ttttgtcttg tagagaagca tcgtatggct tttgtcctta tttcgaaatg tggacttact    120
tttttggaaa acatagctat ttatgcgtca gcaggtatga ttcctgatac cgaagatcag    180
actcattttt atatcgcccg ggtaaaacca gaacgttttt tggtaccggt ttctgagatg    240
tctggttatg aaagggagca taaatcgtat ttgaaggtag cggtttggag ggatccggta    300
gaaaggctgg tttctgctta taaatatttt atacttgaac gtaccttcaa tcaatacatg    360
tacatgtgta atctgtatca ggattgttct tttgaacgct ttctttcgtt cgttgagttt    420
gaattgggga aggcaaatcc gttgtggcag gatgaacata tacgcaggca atctgatttt    480
tatacttctg ctgatgtgga ctgtattgta cctctcagca agttgaaccg ttttttagcc    540
gagaggggag tggatatgcc ggaagaaaag gcaaatgcca catctgtccg gtttgaactg    600
aaggatgaaa aacagatagc aaagataaaa gaactatatc gtcttgatta tgaaatacct    660
gttggttgtt aa                                                        672
```

<210> 3406
<211> 720
<212> DNA
<213> B.fragilis

<400> 3406

```
ccgctggtga agacattggc tggcagagaa tgctttgcag gtgttatgtg ctattgcacg     60
aagacccgta ctgatattgt ttcgggaaac acactggcgg tgcatgccga tggacaggtg    120
caaagttggg aaagaagggg cagagagttg tttgcgacag gcaccgtagt gtccggtagt    180
acatattttt caagagtgat ggattgcagg tgttatgtcc ccatggtata caattatta    240
tataggaggg atttattga acagaatgga tttcgctttg aaccgggggtt ggttcatgaa    300
gatgaattat ggactcctca ggtgctgaca accgctcaaa aaataacggt tgccgatatt    360
gatttttatt attaccggca acgggaagga tcgattatga cggcgacggc agcgggcagg    420
cggattgctt ccattcaatt gattattgag aagttactgg aatatagccg taagcacttg    480
tttgagaaaa aatatagaga ggcaaaggaa gcactctatg taaggctgtt gcagatatat    540
tctactgcct gtacattgca tccggacgga acttatacaa ctttgtacga tagggcggga    600
gagatgcttc gtgtttgtga ggaactcagg cggcaagagt ctcttgggag atggtatagt    660
gaggaaatcc tcaacaggat gaaactgtat tatgaccggc tccaaacgat ggaaggatga    720
```

<210> 3407
<211> 627
<212> DNA
<213> B.fragilis

<400> 3407

```
gggtgctgta gccgaagagg gaacccaccg ggaactgacg gaaaagaaag gattgtatta     60
tcagttggtg aagaatcagt tggaattagg aagttagata tggaaaagga gcacacacat    120
aaagagatcg agcttcgtag cgaagaggtg caggaagtga tgaatcgtgt tccggcatgg    180
attcttcgca gtggcattac ggtgctgttt gtcatagtgg tggcattggt tgccggaagc    240
tattggttta aatatccgga tgtgattgct gcggaggtga cggtaagcac acaagatcct    300
ccggcttacg tagtggcccg agcagccgga agactggaga atctgtatgt acaaaacggg    360
caggaggtgg aacccgacac gaatctgggg acaatagaga atacagcttg tgcgtcggat    420
gtattctcct tgcaagagcg gatgcggaag tggaaacagg aaggatatac gcctgagtcg    480
ggtaaagggc tttttctaca ttcggaaaca gatcgctggc ggctgggaga gatacagtcg    540
gcctatgcgg cgtttgtgag tactctctcc gaaatggtgc gtatgaatga attggggtat    600
tatgcaaaga agttacagtc gtcttaa                                        627
```

<210> 3408
<211> 768
<212> DNA
<213> B.fragilis

<400> 3408

```
agaccccagt tggagagttt tgagagtatc accggaaaag gtatcaaggt ggtatatcag     60
ggtgacactt attgggtggg cagccacaaa ttgctgaaag atttcagtgc ttctctttct    120
gacgtacttg ccagatgat ggtgcaatac gaatcggacg ggaacagtat cgtttacttt    180
ggccgtggaa cagaggtact tgccgttgtc gccattgccg accagataaa gccgacttct    240
```

```
gccgaggcgg tgaaggaact gaaacgtcag ggcatcgaca tttgcatgct gaccggtgac    300
ggacaacgga cggcacttgc cgtatcgggc aaattgggca tcgaccgctt tgtggcagat    360
gccttgccgg atgataaaga agagtttgtg cgtgagctcc agatgcaggg caaaacggtt    420
gctatggtgg gtgacggaat caatgactca caggcgttgg ctttggctga tgtcagcata    480
gcgatgggga aaggcaccga tatagccatg gatgtggcga tggttacgtt gatgacatcg    540
gatctgctgt tgctgccccg tgcattcgaa ctctccaagc aaacagtaaa actgattcac    600
cagaatctgt tttgggcgtt tatctataat ctgataggca ttcccattgc agccggaatc    660
ttgttccctg tcaacgggtt gctgctcaat ccgatgcttg ccagtgcagc gatggcattt    720
tcaagtgtaa gtgtcgtgct gaattcactg agtctggcca gaaaataa                 768
```

<210> 3409
<211> 204
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(1),(2),(3),(4),(5),(6),(7),(8),(9),(10),(11),(12),(13),(14),(15),(16),(17),(18)
,(19),(20),(21),(22),(23),(24),(25),(26),(27),(28),(29),(30),(31),(32),(33),(34)
,(35),(36),(37),(38),(39),(40),(41),(42),(43),(44),(45),(46),(47),(48),(49),(50)
,(51),(52),(53),(54),(55),(56),(57),(58),(59),(60),(61),(62),(63),(64),(65),(66)
,(67),(68),(69),(70),(71),(72),(73),(74),(75),(76),(77),(78),(79),(80),(81),(82)
,(83),(84),(85),(86),(87),(88),(89),(90),(91),(92),(93),(94),(95),(96),(97),(98)
,(99),(100),(101),(102),(103),(104),(105),(106),(107),(109),(110),(111),(112),(1
13),(114),(115),(116),(117),(118),(119),(120),(121),(122),(123),(124),(125),(126
),(127),(128),(129),(130),(131),(132),(133),(134),(135),(136),(137),(138),(139),
(140),(141),(142),(143),(144),(145),(146),(147),(148),(149),(150),(151),(152),(1
58),(159)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3409

```
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn    60
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnntnn nnnnnnnnnn    120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nncccccnng gacctctgtg ttactctgtg    180
ccctctgtgg tgagttcgtt ttga                                          204
```

<210> 3410
<211> 192
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(1),(2),(3),(4),(5),(6),(7),(8),(9),(10),(11),(12),(13),(14),(15),(16),(17),(18)
,(19),(20),(21),(22),(23),(24),(25),(26),(27),(28),(29),(30),(31),(32),(33),(34)
,(35),(36),(37),(38),(39),(40),(41),(42),(43),(44),(45),(46),(47),(48),(49),(50)
,(51),(52),(53),(54),(55),(56),(57),(58),(59),(60),(61),(62),(63),(64),(65),(66)
,(67),(68),(69),(70),(71),(72),(73),(74),(75),(76),(77),(78),(79),(80),(81),(82)
,(83),(84),(85),(86),(87),(88),(89),(90),(91),(92),(93),(94),(95),(96),(97),(98)
,(99),(100),(101),(102),(103),(104),(105),(106),(108),(109),(110),(111),(112),(1
13),(114),(115),(116),(117),(118),(119),(120),(121),(122),(123),(124),(125),(126
),(127),(128),(129),(130),(131),(132),(133),(134),(135),(136),(137),(138),(139),
(140),(141),(142),(143),(144),(145),(146),(147),(148),(149),(150),(151),(157),(1
58)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3410

```
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn          60
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnntnnn nnnnnnnnnn          120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nccccnngg acctctgtgt tactctgtgc          180
cctctgtggt ga                                                            192
```

<210> 3411
<211> 186
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222>
(1),(2),(3),(4),(5),(6),(7),(8),(9),(10),(11),(12),(13),(14),(15),(16),(17),(18)
,(19),(20),(21),(22),(23),(24),(25),(26),(27),(28),(29),(30),(31),(32),(33),(34)
,(35),(36),(37),(38),(39),(40),(41),(42),(48),(49)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3411
```
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnccccnng gacctctgtg          60
ttactctgtg ccctctgtgg tgagttcgtt ttgaaaggaa ttgttatttt ctggccagac        120
tcagtgaatt cagcacgaca cttacacttg aaaatgccat cgctgcactg gcaagcatcg        180
gattga                                                                   186
```

<210> 3412
<211> 2304
<212> DNA
<213> B.fragilis

<400> 3412
```
cttgtgtcac cctgtgcagt ctgcggtgaa tcctatctgt ttcttattga atataaaccg        60
aataaaaaag acaaacgaag aaatttaatg aaatacatgt tattgaccgg actgcttctc        120
ggcagtctga ccgtacaggc gcaagtgagc ggtacggtga aagatcaggc aggcgaaccg        180
attataggcg ccaacgtttt ctggaaaaac atttccggtg gggtagccac tcgtgaggac        240
ggtacttttt ccatatctaa acccgacaaa tccaatcatc tgatcgtaag ttttataggt        300
tacgaaaacg acaccataca agtgaacgat aagaaagccg ttctggacgt ggtgctgcgc        360
gaaggaatgg aactgagtga agtgcagatt gtcagccgta agttgagtac gctgaagttg        420
cgcagcagtg tgatgaacga agagatcatt accagcgacg agctctgccg tgcggcatgt        480
tgcaatctcg gtgaaagttt tgttaccaat ccgtcggtag acgtcagcta ttcggatgct        540
gcaacgggag cgaaacagat caagttgctc gggctttccg gaacctatgt gcagatgctg        600
accgagaata tcccgaacta tcgtggtgct gcttctcctt atgggttggg ttatgtgccc        660
ggtccttgga tgcatagcat acaggtttca aagggaatct cgtcagtaaa aaacggttac        720
gaggccctta cggggcagat caatgttgag tttaagaagc cacagttgcc tgaggccgat        780
tgggtttcgg ccaacctttt tgccagtact accaatcgtt atgaagcgaa tgcagacgcc        840
accgtgaaac tgtccaagcg gtggagtact tcattgctgg cgcattacga gaatgaaaca        900
aaggcacacg acggcaatga tgacggcttt gccgatattc cccggataga gcagtataac        960
ttctggaatc gctgggcata tatgggggat cattatgtgt ttcaggcagg catcaaggca        1020
ttggacgaaa gcagaaaagg cggtcaggtg agtcatagcg gcgtgccggc agccgatcgg        1080
tatgaaatag acatcgacac ccggcgctac gaggccttta ccaagaatgc ctatatattt        1140
aataaggaga agaataccaa tcttgcactg attctgtccg gtacgttgca caatcaagat        1200
gcactttatg acggaagat ctataacgtc gaccaatcca acgcctatgc ttcacttatg         1260
ttcgaaaccg aatttacgaa agagcacaat ctatctgcag gcttcagcta taattatgac        1320
ggatacgacc agcattaccg actgaccaat aacgctgaaa caccgttgac gaaagctttt        1380
gcacgtgaat cggtgggcgg ggcctacgca cagtatacct tcaacctgga taataagttc        1440
gtgttgatgg ccggacttcg tggcgaccat agcagtgagt acggattctt tgtgactccg        1500
cgtgcgcaca ttaagtacaa ccccaatgac tttgttcatt ccgtctttc cgccggaaag         1560
gggtatcgca ccaaccatgt gcttgctgag aataattatc tgatggcaag cagccgcaag        1620
gtgagcatcg ccgatcatct cgatcaggaa gaggcttgga attatggagc aagcatatcg        1680
ggatatatcc cgcttttcgg gaagacgctg aacctgaacc tggaatacta ttacaccgac        1740
```

```
ttcctgaaac aggtcgttgt cgatatggat acgaatccgc acgaggtggc cttttacaat    1800
ctcgacggac gctcgtactc acaggtattt caggtggagg ccacttatcc cttcttttcag   1860
ggattctcgc tgactgccgc atatcgctgg acagacgcca agactaccta taatcatcaa    1920
ttgatggaga agcccctgac gggaaaatat aaaggcctcg tcactgcctc ttatcagact    1980
ccgctgggtt tgtggcagtt tgatgccaca tggcagatga acgggggagg acgtatgccc    2040
aatccgtaca cacttgccga cggaacctct tcgtgggatg cacgctacaa aggcttcagc    2100
caactcagcg cccaagtgac acgctacttc cgccgctggt cgatatacat cggggggcgaa   2160
aacctgacta attttaaaca gaagaatccg attatcgatg ctgccgatcc ttggggcgac    2220
cgttttgact cgaccatgat atggggggccg gttcatggag cgaaaggtta tatcggagtc   2280
aggttcaatc tggcgagaga ttaa                                           2304
```

<210> 3413
<211> 573
<212> DNA
<213> B.fragilis

<400> 3413
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ataatgaaga caaatgaagt tttagagacc attaaggcac ggcgtagtgt acgtgcgtat     60
gatcgaaagc agattccggc ggatgacttg aacgccatcc tggaagcggg tgcttacgcg    120
ccgagcggca tgcattatga aacgtggcat tttactgccg tctgtaatac agtgaaactg    180
gaagaactga atgaacggat caaaggggca tttgccaaaa gtgatgacaa gcatcttcgg    240
gaacggggc acagtgagac gtattgctgt tactatcatg ccccaacctt ggtcatcgtg     300
tccaatgaac ccaagcaatg gtgggccggg atggattgtg cctgtgctat cgagaatatg    360
tttctggcag ccacttcact gggcatcgct tcctgttgga tcaatcagct cggtacgacc    420
tgtgatgatc cggaggtacg ggcctatctg acttctctcg gagtgcccga aaatcataaa    480
gtttatggtt gcgtagcttt gggatataaa gcggaaggcg cattgttgaa agaaaagaca    540
gttaaagccg gtacgataac catcgtggaa tag                                 573
```

<210> 3414
<211> 720
<212> DNA
<213> B.fragilis

<400> 3414
```
atagaatttg caaagatgat cagaagtaaa atgaaaagca cttggatgtt gggactgctg     60
ctcctcctgg gaagctgtca gcagaaaggg ccggcaagtg gccgggcgga gatgaaagga    120
gagtcggata gtttgagtgt ccggcatggg caagagaatg cattgtcggt ttcggatgaa    180
tatccggaag ggtatgttcc tgttccgggc attcggtatc aggcgaacta tcttaccgga    240
aatccggagc gtcttgacgt gaaggctgca ttgcggaatg tccgtccgct gaagttgagt    300
caattgggca gtcagcttga tttcatggta tttaaagatg tgaaaggagg catcttccgc    360
ctgataccga ttgaagaggg ctgtttggga gtggggattg gtggcatctg gctgctggat    420
gggaacctga aaatgattcg gatgttgttt cgcaatgatg tggatattac ggaagaaaat    480
ggatttacca actttcagac gaagcgttac atcaatccgg attattatga aaagtcttcc    540
cggacgttga tcggcgtgct gtatgatcag agggataaaa agaatcccaa atcctttgtc    600
aggctttctc tgaaagattt gttaagcgca tcccggcctc tgacaccgga cgatatccat    660
aaacgtgcag ggtcttcacc acggggctgg aagaatgccg catcgagtca gttaaaaccc    720
```

<210> 3415
<211> 918
<212> DNA
<213> B.fragilis

<400> 3415
```
tatgaactat atttgtcgat agtgaacgat tatataaatg ttgaatttaa agaagaaccc     60
cttatgaaaa aacaatatgt cagcctgctt gcgataatac ttgctacaag tggctttttta   120
ttttcttgcg gtgacaagat gaacaagaat accggtgcac tggaattcga cagtatacag    180
gtaaacgaaa cagcacatct cttcggagat accgcaaaac cggcatgtaa tctgaccatc    240
aatttcgcct atccggtgaa gtcgacggac aataaactga agacagcct gaacagctac      300
tttatcgccg cctgcttcgg tgaaggatat atcggagaga aaccggcgca ggtggtaaag    360
```

```
gagtacaccg aacattacgt aaaagaatat cgcacagacc tcgaaccgat gtatgccgaa    420
gacgaaaaga acaaagagag tgaaggctcc atcggtgcat ggtactcata ctataaaggg    480
atagaaagcc acgtgcaact ttattataag aatctgttgg tctaccgcat taactacaac    540
gaatataccg gaggcgcaca cggcatttac atgacaactt tcctgaatat ggacctgata    600
aacctgcgtc cgctgaagct ggatgatatt ttcactggtg attataagga agcactgacc    660
gacttgctgt ggaatcagtt gatggcggac aagaaagtga caacgcacga agcactcgag    720
gatatgggtt acggctctac cggagatatt gccccaacgg aaaacttcta tctggacaaa    780
gacggcatca ccttttatta taatgtatat gatatcaccc cgtatgccat gggaccggta    840
gaaattaaga ttccatacga aatgatggaa cacatgctgg gcagcaaccc gatcatcgga    900
gagatgaaat caaaataa                                                  918
```

```
<210> 3416
<211> 2016
<212> DNA
<213> B.fragilis
```

```
<400> 3416
actatacata aactacaaaa aacaattatg aaacaagaag aagacaagtt tacgggctta     60
cccgagaacg cattccggga actgaaaccg ggagaagtgt acaacccgct gatgagtcca    120
aagaaaacgt atccggaggt aaacctctgg tctgtagcat ggggtatcgc catggccatc    180
cttttctcgg ctgccgcagc ctatctggga ctaaaagtag gacaagtatt cgaagctgcc    240
atccccatcg ccatcatagc agtcggagta tccggcgcag ccaaacgcaa aaacgcactc    300
ggcgaaaacg tcattatcca atccatcggc gcctgctcag gcgtcatcgt ggcaggagcc    360
atcttcacac tgcctgccct ctatatcctg caagccaaat atccggatat gtcggtcacc    420
tttatgcaag tgttcatcag ttcactgctg ggcggtgtac tgggcatctt gttcctgatt    480
cctttccgca aatactttgt aagcgacatg catggcaagt atccttttcc cgaagcgaca    540
gccaccacac aggtgctggt gtcgggtgaa aaaggaggca gccaggccaa gccattgctg    600
atggcaggat tgatcggcgg tctgtacgat ttcatcgtgg ctaccttcgg ctggtggaac    660
gaaaacttca ccacccgcgt atgcggagta ggcgaaatgc tggccgacaa agccaaactg    720
gttttcaagg taaacaccgg cgcagccgta ctcggcctgg gatatatcgt cggactgaaa    780
tatgcttcca ttatctgctt cggctccctg ccgtatggt ggatcatcgt accgggcatg     840
tcactcttct tcggtgattc ggtactgaat cagtggaatc cggacataac cgccacggta    900
ggctctatga gtcccgaaca gatattcagc cactatgcca aaagcatcgg tatcggcggc    960
attgccatgg caggtgtcat cggcatcatc aaatcatgga gcatcatccg cagtgcggtg   1020
ggactggcgg ctaaggaaat gggcggaaag agtgatgccg aaaagaacat tatccgcacc   1080
caacgcgacc tctcaatgaa aatcattgcc atcggttcca ttatcacgct gattctggta   1140
gtgctttct tctatttcga tgtgatgcaa ggcaacctgg tgcatacact ggtagctatc    1200
ctgctggtgg ccggaatttc attcctgttc acaacggtag ccgccaatgc aatcgctatc   1260
gtgggcacta atcccgtatc gggcatgact ctgatgacat tgattctggc atcggtcgtt   1320
atggtggctg tcgggttgaa aggcccttca ggcatggtgg cttcattggt aatgggtggt   1380
gtggtctgta ccgcactttc catggcagga ggttttatca cagacttgaa aatcggatac   1440
tggcttggca gcacaccggc caagcaggaa gcatggaagt tcctcggaac catcgtttcg   1500
gctgctaccg taggcggtgt aatgattatc ctgaacaaaa cttacggatt cacaagcggt   1560
cagctggctg ccccgcaggc taacgcaatg gctgccgtca tcgagccgtt aatgagtggt   1620
gtgggcgctc cgtggatgct ctatggcatc ggtgccgtac tggccatcgt attgacgctc   1680
ctgaaagttc ccgcactggc atttgcactc ggtatgttta ttcctctcga actgaatata   1740
ccgctggtgg tgggcggtgc gatcaactgg tatgtgacta cccgcagtaa agacgcttca   1800
ctcaacacgg aacggggaga gaaaggtaca ttactggcat ccggattcat cgccggaggt   1860
gccctgatgg gtgtagtcag tgcggcaatg cgcttcggag gcatcaatct ggtaaatgac   1920
gcgtggctga caacactct gtctcaactt gcggccctga tagcttatac cctgttgatt   1980
ctctatttca tcaaagcatc catgaaagta aaatga                              2016
```

```
<210> 3417
<211> 2862
<212> DNA
<213> B.fragilis
```

```
<400> 3417
atcattaata acatgaaaac cgatttatta gcctgccgcc acatcggcgt caacaaagcg     60
```

```
gatgccgaag taatgctccg gaaaattgga gttgcttcgc tcgacgaact gatcgataaa    120
accattccgg ccaacatccg gctcaaagca cctctggcac tacccgcacc gatgaccgaa    180
tacgagtttg cccgccacat cgctgaactg gcaggcaaaa acaaactgtt caccacttat    240
atcggtatgg gatggtacaa cacgatcacc cctgcagtca tccagcgaaa tgtattcgag    300
aatccggtct ggtatacttc ttatactcct taccagacag aagtttcgca aggaagactg    360
gaagccctga tgaacttcca aactgccgta tgtgacctga ccgccatgcc cttggccaac    420
tgttcactgc tggacgaagc caccgctgcc gccgaagctg tgacgatgat gtatggcttg    480
cgttcacgca accagcagaa ggcgggagcc aacgtggtgt ttatcgacga aaatatcttc    540
ccgcagacct tggcggtcat caccacccgt gccatcccgc aaggcattga aatccgtacc    600
ggaaagttcc gggatcttga atttacagat gacttctttg cctgcgtcct gcaatatccc    660
aatgcaaacg gtaatgcgga agactaccgc gaatttaccg aaaaagcaca tacagccaac    720
tgcaaggtag ctgtggctgc cgatatcctg agtcttgcac tacttacccc tccgggcgaa    780
tggggagcgg acattgtatt cggtaccaca caacgcttgg gtactcccat gttctacggt    840
ggtccttcgg ccggttattt cgctacccgt gacgaataca aacgcaacat gccgggacgt    900
atcatcggat ggtcgaaaga taaatatggc aaactctgtt accgcatggc actccagaca    960
cgcgaacagc atatcaaacg ggaaaaagcg acttccaata tctgtaccgc tcaggcactg   1020
ctcgcaacca tggcaggatt ctataccgtc tatcacggac aggaaggtat ccgtaacatc   1080
gcttcacgca tccatagcat taccgttttc ttggaaaaga gtatcggtaa actgggattc   1140
aagcaagtga acaaacagta tttcgatact ctccggttca ttttgcccga cagcgtatcg   1200
gcacagcaga ttcgcaccat cgctctgagc aaagaggtca acctgcgcta ttttgataat   1260
ggagacgtgg gactgagtat tgacgaaaca accgacgtag cagctgccaa cattctactg   1320
tctatctttg ccatcgctgc cggaaaagac ttccagaaag tggatgacat ccccgaagca   1380
actatcatca gcgaggaatt gaaacgccag accccttacc tcacacacga agtattctct   1440
aaatatcata ccgaaacgga aatgatgcgc tacatcaagc gtctcgaccg gaaggatatt   1500
tcattggcac aatcgatgat ttcactcggt tcctgcacca tgaaactgaa tgcggcagcc   1560
gaaatgttac ctctgagctg tgctgagttt atgtgcatgc acccgcttgt tccggaggat   1620
caggcggccg gataccgcga actgattcac aacctgagtg aagagctgaa agtcatcacc   1680
ggatttgccg gagtaagcct gcaacccaat tccggtgctg ccggtgagta tgccggtctg   1740
cgcaccatcc gtgcctatct tgaaagcatc ggacaaggac accgcaacaa agtattgatc   1800
cccgcatctg cacacggcac caatcccgca tcagccatcc aggccggatt caccactgta   1860
acttgtgcat gtgacgaaca tggaaacgta gatatggatg acctccgtgc caaagctgaa   1920
gaaaataagg atgacctggc cgcactgatg atcacctatc cctcgacaca cggtatcttt   1980
gaaacagaaa tcgtagagat ctgccaaatc attcacgcct gtggagctca ggtatatatg   2040
gatggagcca acatgaatgc acaggtagga ctgacgaatc cgggatttat cggagcggac   2100
gtctgtcacc tgaatctgca taaaaccttt gcatctcccc acggaggagg cggccccggc   2160
gtaggcccga tctgtgtagc ggaacatctg gtaccgttcc ttccgggaca cggactgttt   2220
ggcaactcac agaacgaagt atccgccgca ccgtttggca gtgccggtat tctgcctatc   2280
acctacggct atatccgtat gatgggtgcc gaaggactga caatggcaac caagacagcc   2340
attctcaatg caaactatct ggctgcttgc ctgaaagata cgtatggcat tgtataccgg   2400
ggagccaacg gctttgtggg acacgagatg attctggaat gtcgcaaggt atacgaagaa   2460
accggtatca gcgaaaatga tattgccaaa cgcctgatgg actacggcta tcatgctcct   2520
accctctcct tccccgtgca cggcacactg atgatcgagc ccactgagag cgaaagcctc   2580
tccgaactgg ataacttcgt ccttacgatg ttgaccatct ggaacgaaat tcaggaagtg   2640
aaaaacggtg aagccgataa ggaagacaat gtactgataa atgctccgca ccctgaatat   2700
gaagtagtaa gcgatcagtg ggaacactgc tatacgcgtg aaaaagccgc atatccgata   2760
gagagtgtgc gtgagaataa gttctgggta aatgtagccc gtgtagataa tacgctgggc   2820
gatcgcaaac tgctgcccac atgctacggc tgcttcgact ga                      2862
```

<210> 3418
<211> 2214
<212> DNA
<213> B.fragilis

<400> 3418
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attatgagta atataacaaa gaaagcgttt cctgtactga atatgcactg tgcagggtgc     60
gctaataatg tggaaaaaac agtgaagaaa ctggccggtg tggtagacgc atcggtcaac    120
ttcgccacaa acacactgtc cgtttcgtac gaggccgaca agctgacccc cggagagatc    180
cgtgcggctg tacttgccgc aggttatgac ctgatagtgg aagaggccct gaaagaggaa    240
cgtcaggagg aggcacagga gaaacactac cggctgctga agcggcaggt tatcggtgca    300
```

```
tggatcttcg ttgttcccat gttgctgttt tctatggttc tgatgcatgt acctttctct    360
aacgagatcc agttgatact ggccctccct gtaatgatct tttttggtgg atctttctac    420
gtcaacgcct ggcggcaggc acgtctgggg aggagtaaca tggatacgct ggtggcactg    480
agtacctcca tcgcattcct gttcagtgtc ttcaatacat ttttccctga gttctggtat    540
agccgtggac ttgagccgca cgtctattac gaagccgcag tagtcatcat tgcctttgta    600
ctgaccggaa agttaatgga agagcgtgct aagggaaaca cctctaccgc cattcgtaaa    660
ttgatgggac ttcagccccg tgtggcccga gtgcttcgcg aagggatcga agaagacatc    720
ctgatagacc agttgcaaac cggcgatctg gtggtcgtac gtccgggcga acagattccc    780
gtggatggac gtctgtctga aggagagtct tatgtagacg aaagcatgat tagcggagag    840
cctattcctg tagagaagaa ggtcggtgac cgggtactgg cgggaaccat caaccagaag    900
ggagcttttg taatcaaggc gtccggtgtg ggaagtgaga cggtgctggc gcgcatcatc    960
cgcatggttc aggaagcgca gggaagtaaa gctcccgtac agcgtatcgt agaccgggtg   1020
acgggtatct tcgttccggt ggtgctgtgc attgccgtgc tgacatttgt catctggctg   1080
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aaagcagcca gcaaccatat tctgataaag gatgctgttg ccctcgagca gatgcgtaaa   1260
gtcgatgtag tggtgctcga caaaaccggg acattaaccg agggacatcc cactgtctcc   1320
ggatggcttt gggcccaagt acaggaagag catttcaaga atgttctgct ggcagctgag   1380
cttaaatccg aacatccgct tgccggagcc attgtctctt ctctgcaaga ggtggagaag   1440
atagttcctg cccagttgga gagttttgag agtatcaccg aaaaggtat caaggtggta   1500
tatcagggtg acacttattg ggtgggcagc cacaaattgc tgaaagattt cagtgcttct   1560
ctttctgacg tacttgccga gatgatggtg caatacgaat cggacgggaa cagtatcgtt   1620
tactttggcc gtggaacaga ggtacttgcc gttgtcgcca ttgccgacca gataaagccg   1680
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ggtgacggac aacggacggc acttgccgta tcgggcaaat tgggcatcga ccgctttgtg   1800
gcagatgcct tgccggatga taaagaagag tttgtgcgtg agctccagat gcagggcaaa   1860
acggttgcta tggtgggtga cggaatcaat gactcacagg cgttggcttt ggctgatgtc   1920
agcatagcga tggggaaagg caccgatata gccatggatg tggcgatggt tacgttgatg   1980
acatcggatc tgctgttgct gccccgtgca ttcgaactct ccaagcaaac agtaaaactg   2040
attcaccaga atctgttttg ggcgtttatc tataatctga taggcattcc cattgcagcc   2100
ggaatcttgt tccctgtcaa cgggttgctg ctcaatccga tgcttgccag tgcagcgatg   2160
gcattttcaa gtgtaagtgt cgtgctgaat tcactgagtc tggccagaaa ataa           2214
```

```
<210> 3419
<211> 645
<212> DNA
<213> B.fragilis

<400> 3419
ttcgtacgaa agcgtgcagt ttttgtacga tatcgtacac agattaccca aacttttct     60
ctatctttgt cctgccaatc aacatactat actatgacac tgaaacgagg caaaatactg    120
atagccgatg ataatgaaga catccttttc acactgaaaa tgctgttacg ccccattgca    180
gaatcaatca gcatcacgac cgatccgaga gaactgctcc ccatcctgtc acgcacacac    240
tatgatgtca tcttgctgga catgaatttc aggaacgatg ctgtcagcgg acgggaagga    300
ttccactggt tggaagagat cctgaaactg gattcgggag cagtggtaat cttcatcacg    360
gcttatgccg ataccgaaaa ggctgtacgg accatcaagc tcggcgctac cgacttcatc    420
gccaagccct ggcaaaacga taagatgatt gcaacccgta tctgcggcat tgcaactcag    480
cttcagccgt acggaagtag aatcactgaa ggagcagaaa gaagctctga ccgaccactc    540
gccggaaccg gcccgaatca tcggcgaatc ggccgccatg caggctattt ccagaccat     600
ccggaaattt gccgatacgg acgccaatct gttgctttta ggtga                    645
```

```
<210> 3420
<211> 399
<212> DNA
<213> B.fragilis

<400> 3420
aaaatgaaga aaatactatt ttttatcact atgatggtgc tgagcatcgg acttgcccaa     60
gctcaaggaa aagcagaaat aaagtttgat aagacaaccc acgacttcgg aacgttctcg    120
```

```
gaaaacaatc ctgttgtgag ttgcactttc aagttcacaa atatcggcga tgccccgtta    180
gtcattcatc aggctgtagc atcctgcgga tgtaccgtac ccgaatatac ccaggaacct    240
atcatgccgg gaaaaacagg tacaatcaag gtgacttaca acggaacgga taaatatccg    300
ggacacttca aaaagtccat aaccctgcgt acaaacgcca agacggagat gatacgtctt    360
ttcgtggaag gcgacatgac agccaaagac gcgaaataa                           399
```

<210> 3421
<211> 957
<212> DNA
<213> B.fragilis

<400> 3421

```
cgcgtggctg aacaacactc tgtctcaact tgcggccctg atagcttata ccctgttgat     60
tctctatttc atcaaagcat ccatgaaagt aaaatgaaaa cattaatcac atccattctt    120
ctgttcatgg ctaccggctt gtcagcacaa aagcccgttg agctgccttt atggcccaac    180
ggcgctccca atgataacgg gctgaaaggc gaagaagtga tgtcggctcc ataccggctc    240
actaacgtca cacagcccac catcaccgtc tatcgtccgg cgacacctaa cggcatgacc    300
atcatcatgt gtcccggcgg tgcttacgct ctcttggcca tggatcatga aggacacgac    360
atggcaccat ggttcaattc attgggcatc acctatgtgg tactaaaata ccggatgcct    420
aacggacact gcgaggtgcc tttgtcggat gctgaacaag cgatacgaat agtgcggaaa    480
catgccaaag actggaatat tcgtacagac cgggtgggca ttatgggagc ttcggccggc    540
ggtcatctcg cctctaccct tgctacgcat tacagcagtg aggacacacg acccgacttt    600
cagatattgc tctatccggt aatcacgatg gaatccggcg acacccacgg aggatcacgc    660
cacaatctgc tcgggccgga cgcaacgccg gaattaacca gaaagttctc caacgaacag    720
caagtgacgg atcacactcc gcaggctttc atcaccctct cttcggacga cgaaggagtg    780
cctcccgcca atggcgtgaa ttactatctg gcgttgcaaa agcataaggt gcctgccacc    840
ctccacattt atcccacggg cggacacgga tgggggttct atgacagttt tgcctataaa    900
cgccaatgga cggaagaatt agagaaatgg ttgcgggacg gagtcaggtt ccaatag       957
```

<210> 3422
<211> 438
<212> DNA
<213> B.fragilis

<400> 3422

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ctcgaccatg atatgggggc cggttcatgg agcgaaaggt tatatcggag tcaggttcaa     60
tctggcgaga gattaagaat aaaaagtgac agatcacaga atttatcaat actaatactt    120
acatttatga agactaaaaa aatgattgct accctggtgg tggctttgct ctcggtgacg    180
gccgttatgg caaaagactt ccgtactgtc gttttcaaag tggcacagat ggaatgtgcc    240
aactgcgaac gaaaggtgaa gaacaatatc aagttcgaga aagggcttaa aaactttaca    300
accgatctta aggaacgaac tgttaccatt acctatgatg ccgagaagac aaatgttgaa    360
aaactgaaag aaggctttcg gaaatttaaa tacgaagctg tagtcataaa ggaggcaaag    420
gaaacggaca agaagtga                                                   438
```

<210> 3423
<211> 321
<212> DNA
<213> B.fragilis

<400> 3423

```
gcatttacag aatatgctta cgtcttttca aattatctct atatgttttc ctactttaca     60
tctattgtta gggtttcgga ggttaaaaga aaaagattat tctctggttg tactcccgaa    120
gcagacaagt ccgaactaac agaaagagag ccacatgctc ttattacgca ccttttcatt    180
ccgatagctt cacgacatcg ccattatgac agcctgcaaa gacatctgat atcaaaaaca    240
aaatcgccaa cccgcaagga aggcgatttt atccgttcag tgcatcattg ggcggaaata    300
gagcaatcca gagaggtttg a                                               321
```

<210> 3424
<211> 849

<212> DNA
<213> B.fragilis

<400> 3424
```
agaaatggtt gcgggacgga gtcaggttcc aatagataca acgaaggtat tacaaaaaca    60
atctttataa aaatgaaaac aattcgcaca cttttattat gtaccagcct attggccgga   120
acagttgcag cacaggagag cagcctggtg ctgagtaacg gactcgggtt tgtcgacacc   180
ccctataagg caggcaccct ggaagtagat gacacagaag accttattat caattgtgac   240
gaagtggatt gtaccacttt cgttgaatat gcactggcaa tggccctctg cccgcagcaa   300
ggagacgaaa tgcaggaagg cgatttcgcc cgcaatttgc aacgcatccg ctatcgtgac   360
ggaaaaatag acggatacac ctcccgccta cactatatat ccgactggat caacaatgca   420
gtccgccaag gcctgctcga agatgtaacg gctacctaca gccccttcaa acaaaaacta   480
tcgctctcgt acatgagtac gcatccggaa ctctacaaat cgttgaaaaa ttctccggag   540
aacgtagccc aaatggcaaa gtatgaaaaa gccttgagcg gcaaagaggt acactatctg   600
cccaaagaca aactggaacc ggacggactg ccttggatca agaacggaga catcatcgcc   660
ctgaccacca atactccggg actggacgta agccacatgg gcattgccat ttacatcaag   720
gggcagttgc acctgctgca tgcttcatcc aaagagggta agtagtagt gggcaaaacc   780
gcactgagcc aaatgttgaa agacagaaaa tcactgaccg gcatcagagt gctgagaatg   840
aaaaaataa                                                            849
```

<210> 3425
<211> 1404
<212> DNA
<213> B.fragilis

<400> 3425
```
cctcagaaat gctgggaatc acccggacat cgctatacag gcggatcgag aaacacggat    60
tataacctca aacagttaca cgacatgaaa caaaaatggg cgaggaaacc ccttatattg   120
acagcagccc ttttgatctg ctgttacacc accgtgtggt taggcatgca cggtttctat   180
atcagcctgc cggtatccgt atgcctcttg ctatacacag cctacagaat ctatcgctac   240
atcctccgct ccacacgtgc catggcacag ttcatctggt ctgtccgcta ttccgagttc   300
ctctcctccc ccgtgcaaag cgaagaaagc ctccgttcac tgccggcaga gcttctgaac   360
gaaatgaacc aagccttgga tttctacaaa cagaaccttc agaagaaaga aagcaaacta   420
caatattttc aggctctggc caaccacatc gatatgtccg tattggtata taccccttcc   480
ggacggatcg agtggatgaa tgaagccgcc aaaagactgc tcgacaacca caatctgaaa   540
agtatcgatg aactgaaata ctttcacagc gagctgcctg cccgcccttta ctccttaaaa   600
gcgggtgaca tcgccgttct gcaggcgaaa aaagaggaag agaccatcca actggcactt   660
tccggaatgg agtttgtgat acagggacga ccgctcacag tggccagcat gaaaaacatc   720
cattcggtat tagacagcca ggaaaccgaa gcctggcaga aactgatccg tgtactgaca   780
cacgaaatca tgaattccat cactccggtc acgtctttgt ccgaattgct ggaacatcag   840
atagaagact ttgacggcaa tgaagaagag cgggccgaaa tacgccggat gttacaaacc   900
atccgccggc ggggcgacgg gttaattcgg tttgtcaaca gttaccggga agtgtctcac   960
ctgccacaac ccctgctgaa gatatataca tcacaagaat tactgacagg tgtggtacgg  1020
ttgatgtaca gagaaccgaa tgacctgcac ctgatacttc cgcccaaggg ccaacgcctg  1080
atggcggaca aagatctgat tgaacaagtg ctgatcaacc tgattaaaaa cgcccgcgag  1140
aacgatgcga ccgacatccg gatctcagcc ggattaagtt ccggagaacg ccctatata  1200
aggatagaag acaacgggac aggaattgag caagaggtgc tcgaccgcat ctttatcccg  1260
ttcttcacga ctaaacccac cggatcgggc atcggcctga ccatctcacg acagatcata  1320
catctgcacc gcggcaccat caccgtttca tccgaaccgg ggaaaggcag tatcttcacc  1380
ctcttgtttc cgggcgtatt ctaa                                          1404
```

<210> 3426
<211> 849
<212> DNA
<213> B.fragilis

<400> 3426
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caaagatgcc ggctttcagc ctgcatgatt gtttgtagat atttaatata tcctcggtta    60
catcattcca tgccaaaatc tcgcacggaa gatctacttg tggaaagtca aacttcatat   120
```

```
tactttcttt ttttgaatca cgcaaatata cacattttct tttatttttt tatctttgtc      180
cttatgaaaa caattacaac cgattgggaa cttattccat attctgaggc atggagccgc      240
cagacggaat ggttcgatgc ccttgtccat gcgaagcaga acggggagag ttacgagaac      300
cgtataattt tttgtgaaca tccgcacgtt tacacgctgg ggcgtagcgg gaaagaaaat      360
aatatgttgc tgggagagga gcaactgaag actatcggtg ccactctcta tcatatcgat      420
cgtgggggag acatcactta tcacggtccc gggcagttgg tgtgctatcc gattctcaat      480
cttgaagagt tcggattggg attgaaggag tatgtgcatt tattggaaga agccgtcatc      540
cgtgtctgtg cgtcttacgg cgttgtggcg gggcggttgg agaaggcgac cggtgtctgg      600
ctggagggag atacgtcccg tgcccgcaag atatgtgcga tagggGtcag gagcagccat      660
tatgtgacaa tgcacggatt ggcattgaat gtcaataccg atttacgtta tttcagctac      720
atccatcctt gtggtttcat tgataagggt gtgacctcgc ttcagcaaga acttggccgt      780
agcatcgata tggcggaggt gaaagaacgg ttgggccggg agttgcttgc tgaccttttg      840
tcaaaatga                                                            849
```

```
<210> 3427
<211> 666
<212> DNA
<213> B.fragilis
```

```
<400> 3427
cgatttaaac gatcaaacaa catagtcatg aaaattaaga gatttgagtt caatatgttt       60
cccgtaaact gctacgtttt atgggacgaa acgaacgagg cagtcgtgat agatccgggc      120
tgcttttatg acgaagagaa acaagcttta aagaacttca tcgtcaccaa caatctgaac      180
ataaaacatc tgctgaacac tcacctgcat ctggatcaca ttttcggaaa tccattcatg      240
cttcgcgagt tcgggctgtc tgccgaagcc aatcaggccg acgagtactg gatagacgaa      300
gcccccaaac agagtcgcat gttcggtttc caactgaatg aagcacccgt cccactggga      360
aaatatctcc atgacggaga catcatcacc ttcggaaaca caacactgga agcaatccat      420
gtaccgggac actctcccgg aagccttgtc tattactgcc gggctgacaa ctgtatgttt      480
tcgggcgatg tgctgtttca gggaagcatc ggacgggccg acctggccgg aggcaacttt      540
gatgaactga agaacatat ctgcagccgc ctgttcgtcc tccccaacga aacaatcgta      600
tatccggggc acggagcacc gactaccatc ggaatagaga aggcggaaaa tccgttcttc      660
aggtaa                                                               666
```

```
<210> 3428
<211> 390
<212> DNA
<213> B.fragilis
```

```
<400> 3428
gttttgttca ggataatcat tacaccgcct acggtagcag ccgaaacgat ggttccgagg       60
aacttccatg cttcctgctt ggccggtgtg ctgccaagcc agtatccgat tttcaagtct      120
gtgataaaac ctcctgccat ggaaagtgcg gtacagacca caccacccat taccaatgaa      180
gccaccatgc ctgaagggcc tttcaacccg acagccacca taacgaccga tgccagaatc      240
aatgtcatca gagtcatgcc cgatacggga ttagtgccca cgatagcgat tgcattggcg      300
gctaccgttg tgaacaggaa tgaaattccg gccaccagca ggatagctac cagtgtatgc      360
accaggttgc cttgcatcac atcgaaatag                                     390
```

```
<210> 3429
<211> 891
<212> DNA
<213> B.fragilis
```

```
<400> 3429
aaaaataaaa gaaaatgtgt atatttgcgt gattcaaaaa aagaaagtaa tatgaagttt       60
gactttccac aagtagatct tccgtgcgag attttggcat ggaatgatgt aaccgaggat      120
atattaaata tctacaaaca atcatgcagg ctgaaagccg gcatctttgc tatttgtacg      180
gaaggcaaga tgaccgcaac cattaatctg attgactacg agataaaacc gaacgacttg      240
atcacactgt taccgggtac cattatccaa ttccgcgaac gcacggaaaa agtacgttta      300
tgctttgcgg gattctcatc ggaatgcgta gaacgcatca atctgataaa atcaatggtc      360
```

```
agttccttct ccaaaataac cgaatgtccg attgtagagt tgcaggagga tatagccagc    420
tatctgatag attatttttc tttgctggca cgcgtgacgt gtgacgaaaa attatctctc    480
ccctccgaaa tgacagaggt gtctttaaga tcgatcctga ctgccgtcgg actaatctat    540
cagagatact cctcgaaaaa ccacaatacg aaccgtaagg aagaaatctg ccgtgaactg    600
gtaggactgg tcacggaaca ttacaccgag gagcgtcgtg cccagttcta tgcggacaag    660
ttgggaatat cgctgcaaca cctcagtact acggtcaagc aggtgaccgg acgtaacgta    720
ctggacgtca tagcctacgt ggttatcatc gacgcgaaag ccaaactcaa atcgagcaac    780
atgactatcc aggaaatcgc ttattcactg aacttcccca gtgcttcgtt ctttggaaaa    840
tatttcagga gatatgtagg catgagtccg ctggaattca gaaacagctg a             891
```

`<210> 3430`
`<211> 714`
`<212> DNA`
`<213> B.fragilis`

`<400> 3430`

```
tctaacttta ttattaaaat acagatatat tacaacctta tgaatacaac agaacaaact     60
tcctccctcc cctctgccgg aggggaaaac ggagtgaagc ttcttcttaa atactttccc    120
gacttgacgg aagagcaacg caaacaattc gctgcgcttt acgaacttta cattgactgg    180
aattctaaaa tcaacgtaat ctcacgcaag gatatcgaga atctgtacga acaccatgtg    240
cttcattcgc tgggtatcgc ccgtgtcatc cgtttccggg ccggcagcag tgtcatggac    300
ctcggtaccg gaggaggatt ccccggaata ccgttggcca ttcttttttcc ggacacgaaa    360
ttccatctgg tggacagcat cggcaagaaa gtacgtgtgg caaccgaggt agccaatgcc    420
atcggactta aaaatgtcac tttccgccat gcacgggccg aagaagagaa acaaacattc    480
gacttcgttg tcagccgtgc cgtgatgccc ctggccgacc tgataaagat tatccggaaa    540
aacatctcgc ccaaacagca aaatgctctc cccaacggac ttatctgcct gaaaggaggc    600
gaactggaac acgaggcgat gccgtttaag cataagacaa gtatgcataa cctgaatgaa    660
gatttcgatg aggagttctt tcaaaccaag aaagtggtat atgtaacgat ttaa          714
```

`<210> 3431`
`<211> 405`
`<212> DNA`
`<213> B.fragilis`

`<400> 3431`

```
tataccacct tgatacctttt tccggtgata ctctcaaaac tctccaactg ggcaggaact     60
atcttctcca cctcttgcag agaagagaca atggctccgg caagcggatg ttcggattta    120
agctcagctg ccagcagaac attcttgaaa tgctcttcct gtacttgggc ccaaagccat    180
ccggagacag tgggatgtcc ctcggttaat gtcccggttt tgtcgagcac cactacatcg    240
actttacgca tctgctcgag ggcaacagca tcctttatca gaatatggtt gctggctgct    300
ttgccgatgc ccaccatcag agcggtagga gtagcaagtc ccaaagcaca cggacaggca    360
atgaccagta cggatacagc cgaaagcaag gcatgtgaga aataa                    405
```

`<210> 3432`
`<211> 1017`
`<212> DNA`
`<213> B.fragilis`

`<400> 3432`

```
ttgcaacccg tatctgcggc attgcaactc agcttcagcc gtacggaagt agaatcactg     60
aaggagcaga aagaagctct gaccgaccac tcgccggaac cggcccgaat catcggcgaa    120
tcggccgcca tgcaggctat tttccagacc atccggaaat ttgccgatac ggacgccaat    180
ctgttgcttt taggtgaaaa cggtacagga aaagatctga tagcgcgcta tgtatacgaa    240
cagtcgcccc ggaaaggcaa aatatacgtc ccgatcgatt tgggaagcat ccccgaaaca    300
ctgtttgaga gcgaactctt cggattcgaa aaaggtgctt ttacagatgc gcggaaaaag    360
aaacccggaa ggctggaggt agcctcggga ggtactctgt cctaaatga aattggcaac    420
ctgagcctgc ctttacaggc caagctgctt tcggtcatcg aacaacgcaa aagttcgcga    480
ctgggttcca ccacttctta tccggtagac gtgagactga tatgcgcaac gaataccgac    540
ctgtatacag ccatcgataa cgggctgttc cggcaagatc ttctctaccg catcaatacg    600
```

```
atcgaaatac gtatccctcc cttacacgaa cggggcaacg accttttcct gcttgccgat    660
cactttttac aacgctatcg gaaaaaatat aaaaaagaag tccggggcat ttcgaaagaa    720
gcgcgcagat tgatgcaact ctatcgttgg ccggggaatg tacgcgagct agaacatacc    780
atcgaacggg cggtcatcct ctcaggcaat ccaatgttga tgccgaacga cttcatgctt    840
cgcacatcgc ctcagggaca ggtttcggag aaagagaaat acaaccttga acgccaggag    900
cgcgaaacca tcagcgaagt actccggctt tgtgccggca acattacgtt agcctcagaa    960
atgctgggaa tcacccggac atcgctatac aggcggatcg agaaacacgg attataa      1017
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<210> 3433
<211> 477
<212> DNA
<213> B.fragilis

<400> 3433
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ctccttatag tatatgtagg agcgggagtc tctgttgccc aatattgttg cagtggttgt    180
gaaacggcca attgttgctg tgccgacaaa tgcggcttct gtggtaagtt tgactttgag    240
ttccataaat catgccgggg cgagggatgt acggcgacca tctataagct tgatctggta    300
aagcaggcat tcgaatcctc tgttcctgct cctgtcagct tgttgctttg tgaccaggta    360
tcggacttgc tatgcgctct tttccgcgat gaggtgttgg atcctcctta tgtgataccg    420
ccacccaaga caagttcccg gcattatctg gctctttatt ctactttgct tatttag      477
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<210> 3434
<211> 1302
<212> DNA
<213> B.fragilis

<400> 3434
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attatgagcc gtagagcctt cggaataact tattttgtat atggggcaac agtcctttct    180
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ctcttactga gtatatgttt tcctttcgct tatggtacat acctgctttg caccaaagat    300
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cataagtgga atataatcat ttgcctaatg gtaatcgttg tgtgcctttc tttcgtagtg    420
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tccatcggag acgatttttga gattgaagag tttattccag ggttgaattg gaatgaaaaa    720
caacgtcttt attctattta tggtcatgca acagttattg aacgatcatt ttataaaaaa    780
gaacatgtga cctacatttc tattgtgtta atggactctg acgaaataca aacaatgaac    840
gatcaggaga gattattacg gataaaagcc cgaagaaaac ctgcgacagc aacggggaaa    900
cgaaccggag gcagagcagg tgcggtcatg cctgataaaa aagaggatct tccaccggat    960
gatcttaagg ctgatctata tgccgaacta aataaagaag ccagaaaggc cgactacatt   1020
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aatctcattg aatatgtatt gctatccgac cggttcctga acaggcagga gagcttcgaa   1140
acctatttct acctgctaag catcccgaca atttcctgcg gttcctttca taaagagacc   1200
ggagaaaggt cagagggttg caaggttata gaaatggagg ttatcgacga agccagggcc   1260
cgggaacggt acaggcgttt tctggccgta tggaaagaat ag                      1302
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<210> 3435
<211> 801
<212> DNA
<213> B.fragilis

<400> 3435
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tcacgaaaca cggcctgggc taatatcatt gcccgtaaac ttactcattg gggtgtcaca    240
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acaaacactg aaataaaatg a                                              801
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<210> 3436
<211> 666
<212> DNA
<213> B.fragilis

<400> 3436
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aaaatcgcca aaacactgtc agcttttgcc aataccgatg gaggacggct gttgatcggc    180
gttaaagaca atggaaaaat agccggtgta cgttcggatg aagaaaaata tatgatagaa    240
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gaaggacgtt ctgtattagt cgtacaaata gatgaaagtg aacacaagcc cgttttttgca    360
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aaccgctatt gccggcaagc aggtatttcc cgacgggctg cagagcattt actggctaaa    600
tttatccggt ttgatattgt ggaaccgata ttcgagaacc ataaattcta cttcaggcta    660
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<210> 3437
<211> 915
<212> DNA
<213> B.fragilis

<400> 3437
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ttcaaactcg atgtcgatgt gcaggtagag ataaccggtt ggggagagaa atatatctgg    900
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<210> 3438
<211> 186
<212> DNA

<213> B.fragilis

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aaggtaaggg tgattaaatg tgattttccg acttcggtag tgaccgagat ggtagattcg   180
ggataa   186

<210> 3439
<211> 909
<212> DNA
<213> B.fragilis

<400> 3439
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ccggtaacgg tacagaaagc ctccgggatg actctcctga aaatcattcc ggtggaaaac   360
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gccaacgacc acggaggttt cgaactgcgt aacagcatgt tcaagggatg tgccaccgcc   540
aaggacatta ccggcctggc cgcaggcaac aggtcctgtg ccgttttttga aggtttcttc   600
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aagatgcggc atttccttcc caaggacacg gtattggtga acgaggcgga acgcctgtat   840
ccgtcatgca atgacttcaa cgagtttttg cagaaaatca agtgcccggc aagcgggcgg   900
gaaatgtga   909

<210> 3440
<211> 981
<212> DNA
<213> B.fragilis

<400> 3440
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tcaccggaca aacacattgc acatgccgca ctgatctacg atgactccca tcgtgagatt   180
ctggcatcca tctaccggca atacctgcag atagccactg agttccgcct gccactgatg   240
ctgatgactc ccacccgcag agcgaacatc gagcaaatag ccgcgtccga ttaccggcat   300
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cccgtatata tcggcggact ggccggatgc cgcggcaatg cgtacgacgg ccgctactat   420
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ggggcggact atctgtttgc cggcatcatg ccgcaactga cagaagccat cggaatggcc   540
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gaagaactgg cagacagact gatgacactg ctgtgggact ttccgctaaa aatctgcgga   900
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<210> 3441
<211> 228
<212> DNA
<213> B.fragilis

<400> 3441
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atcgctattt cccgtgaatt aaaagccgcc tatctttgca acatcagatt gagacaacta   120
aaagaagacc caaaacgtta tgaaaaagaa tttattaatt ttagtcgcac tgctgacatc   180
ggcaacgata tcggcacaga acggaggaac cattatgaag aagtatga   228

<210> 3442
<211> 1542
<212> DNA
<213> B.fragilis

<400> 3442
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tcgtacgtat tgtttaaata cggactaaag gccaaatatg ataatgtcct gaaagaagca   120
gagacagaag cggaagtgat taagaaaaac aaactgctgg aagtgaaaga gaagtttctc   180
aataagaaag cagatttgga gaaagaggta gctctacgta accaaaagat ccaacaggcc   240
gaaaataagt tgaagcaacg tgaaatggtg cttagccagc gccaggaaga gattcagcgt   300
aaaagagccg aggctgatgc ggtcagagaa aatctggaag ctcaattggg tattgtagac   360
aagaagaaag aagaactgga caaactccag catcaggaga ttgagaagct ggaagcactt   420
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<210> 3443
<211> 186
<212> DNA
<213> B.fragilis

<400> 3443
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ttttgcagca aaataaaaaa agtttgggtt gtttatggaa tctgtgtgga atctgcatct   180
ctatag   186

<210> 3444
<211> 756
<212> DNA
<213> B.fragilis

<400> 3444
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aaatacgggg ctaagccgtt cacgctctcc atggtggagg ctgccgtgaa gattagccgg    300
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gaagctatgt ggaaacacga ggtgatctcc gggacggagc gagagtattt gatgattcat    720
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<210> 3445
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<212> DNA
<213> B.fragilis

<400> 3445
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gacagtatcc ggcgttttcg tgaattgaat acggagtatc aggaattaat aaaaaaggaa   3780
ctttatacaa aactggcttc taatatccca tcatttgtac ttgcggctgc ccaaagttcg   3840
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gtcgttgtag gtgatccgaa gcaaatgccc ccgactaatt tctttaccag taattcagtt   4140
gatgaagaac atatagagat agaagatctg gagagtatcc tggatgattg cctggctttg   4200
tctatgcctt ctaaatattt gttatggcat tatcgcagta aacatgaaag cctgattgct   4260
ttcagcaaat ctcagtatta tgataataag ttgctgactt ttcaatctcg gatgatctgg   4320
ctgccaaagt tactttag                                                 4338
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tcagtcacac ctaattgtct tatctatata aaggctataa aaatgaagaa ttatattcag   60
agaatcatcc gtttgtttgc cacctccgac cccgacccaa agctcaccgg agagatccac   120
cgatggctgc tcgatcagga gcatgccggg gaaaaggaga cggcactgca cgatttatgg   180
aacgaaacgg aaggaaaggt ggacaggact acttgggatt ctcttgcatc ggtatatacc   240
aaagtcggag ccaactccgg ggacagacat cagccacgta tccgtttcgc acattatgcg   300
gctgccatag cgttgctgat cgtatcagtt tcggtcactt ttcaaatgac caaacagcac   360
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cttccggacg gcagcatagt acaaccaac tcgggcagta tcttgctcta ccccgaaaag   480
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aactccggtc agccattcat tgtcagatcg ggtaccatgt cggtgacagc cttgggcact   600
gaattcaatg tcgctgctta tccggaagag aacgaaatga ttgcaacttt gatccatgga   660
aaaataaaag tggaatgcga caatgggaaa gagagttata tcgtcactcc cggacagcag   720
gtcacttatc gtaaaagtac gggagaaagc cgactcgccg aagcaaacat cgaagacgta   780
acagcctggc aaaaaggaat gtacgtattc agaggcgtca ccatgtcaga aatcctgaac   840
gagctggaaa gacgctatgc agtcaccttc cagtataacg ccaatttatt taatgatgat   900
aaattcaact tccgtttttcg tgaaaaatcc actttggaag atatcctgaa cattatgcag   960
gaagttgtgg gaggattcag tcatgaactg aagggaaata tatgttatat aaaaccggag   1020
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<211> 192
<212> DNA
<213> B.fragilis

<400> 3447
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acaacctttt gtaatagtaa gaaggtagcc aaagtcatta gtagcacatt ggggctgcag   120
aaggtaaaga agagttccat ctctgtttcc gtcgcattgg gatttgacgc tgtggtgctg   180
aaccctgtat aa   192

<210> 3448
<211> 870
<212> DNA
<213> B.fragilis

<400> 3448
ctccacagac cgtacgtagc ttgttactgc ccaaatctgc taagaaaaag acggatgaaa   60
atcagttatc atttgttttt aacgattgag attgttatga ttcttttttat ctacgataaa   120
acacttgatg gcttgctgac agcactattc gatgcttata accgcaagac cttttcctgat   180
gtcttactct cgaaaggaga tactttacca cttttctatg atgacatttt tacggttatc   240
actgatgaag agaaggcagg acgtgtctgg cggggattgc agaagaagat atcggcatca   300
gcccttttcag ctatcacctg gtgttggctt tcagagttac cggaagtagg tatgcttttg   360
ttccgataca tccgaaaggc cattgactct cccgtctcca ttgagactaa tttcggtgat   420
ccggatgttc tcgctctttc caaaatatgg aagcgggtag attgggagcg tttgcgtatg   480
ttgcagttcg tacgtttttca gaaagcggtg gatggtacct tttttgctgc tttttgaacca   540
cagcacaatg cttttaccttt gacggtaggt cactttaaag atcgtttttgc cgatcaacgg   600
tggctgattt atgacatgaa gcgccgttat ggtttttatt atgatctaca cacggtagag   660
gaagtgacat ttgatgatga tggtcaagca gcacatctga ttaccggaat gttggacgaa   720
agcttgatgg ataaggacga aaaacttttc caacaacttt ggaagactta ttttaaatct   780
atcacaatta aagaacgact gaatcctcgt aaacataaac aggatatgcc ggtgcgttat   840
tggaagtata tcaccgaaaa acagaaataa   870

<210> 3449
<211> 1122
<212> DNA
<213> B.fragilis

<400> 3449
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gatcattttt atgacccccaa agtcaagaga ctcaaaaata aattcggcat ggagggctgg   120
gccgtgttcc atttcatcgt gaacgagatc caccgcgtgg aaggctatta catgatcatg   180
gactccgacg gcctgttcga cgtctcggac tattcccgca tggacgagca acgcatcgcg   240
ggtattgtcg actattgcgc cgagctgggg cttttcgaca aagggctttg gcggagccgt   300
caggtcctca ccagcgagga gatacagaac aggtatatgg gcatctgcaa gtctatccac   360
cgcaagcctt ccatctcgga tgactacctg cttttgaatg cggctgcccc ggccgccacc   420
tcttccccgc aggtggccgc tccctgtccc gccacccata cggcacctgt tgctgaaccc   480
gcgcggaccg gcgaaaaaga gaaggatacg gaactgatgc aggccattgc ggatttttaaa   540
cgcaggctgc aagaaccgga aagcgccgcc ggggtagttc gcgaagaatc gggaataatt   600
cgcgaaaata gaccacaaaa taaaataaaa gaaaatatat cctccccaaa cccctccgga   660
gagggaggct acactccgga gagggaggag gagagaaact ctctttcagg gaagctccaa   720
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gatttcccta tcgaaaaggc gatccgtgac atggagcaga gcaatttcca actgaccaag   840
gaaaattacc tgtatcccct gattaagaac tatatagcca agtataatgc cgagcacgga   900
agtgaagagc gtgccaggca acaggagaag atcctgcgca cccggcgtaa aaccctcgag   960
ctcctgggcg ttccggtgaa ggaccagcag gaaatcctcc agcttgcctc cgttgcaccc   1020
ttggtactgg atacagctct gaaggagacc tggggaaaca aaaagatcaa aagccccacc   1080
atgttcctcc tgagtcggat gcggagggct gtaccggcat aa   1122

<210> 3450

<211> 378
<212> DNA
<213> B.fragilis

<400> 3450
attatggata cggaaatttt aaggaaaaaa tacactttat ggagtaatat cattgatctt   60
cgttctcggg gactcaatat tacgagaacg gcaaagcgtc ttggtgtttc ccgcgatacg   120
gtgaaacgtc tgcagtcttt gagttccgat gaactatttc ggaagtacca ggagtcacgc   180
cggtgcaagc tgcagaacta tgagcaggcc gtcgtatcct tactcttcac tttttcttcc   240
acttccagca gtcgtgtcca cgactattta aaagaacatt atcctgattt tccaaacgtc   300
tgtgataaga ctgtgcgcaa ttacgtgcag tttatccgga agaaacacca tcttccattc   360
cggtcctgtc gtttatga   378

<210> 3451
<211> 912
<212> DNA
<213> B.fragilis

<400> 3451
tatattggca cattgaaaag tgattcttgg ctccatcgtt ttttgcataa tcagccgcta   60
aagcataagc tgtatgtcat tatcttcgaa tccgatacac ccgcagggaa agcattcgac   120
gtaacccttta tcatatgtat tctgctgagt atcctgcttg ctataatcga aagccttcaa   180
ggtctgcctt cctggctttc cactcccttt atcgtgcttg aatatctttt cacagtttttt   240
tttacctttg aatatgtcac ccgcatctat tgctcaccca atccacggaa atatattttc   300
agtttttttcg gtattgtcga tcttctggct acattgccac tctaccttgc cttcttcctg   360
cccggagcac gctatctgct gattatacgt gctttccgga ttatccgggt attccgaata   420
ttcaagttgt tcaacttctg gctcgaaggt gaacgtctac tcacttccct gcgggaaagc   480
agcaaaaaga tcgccgtctt tttcctcttt gttgtcatcc tcgtcgttgc catcggcact   540
ttaatgtaca tgattgaagg gactcaaccc aatacacaat ttaataacat tccgaatagt   600
atctattggg ccattgtcac catgaccacc gtaggctatg gagacatcac tcctgctacc   660
gctcttggca aatttctttc tgcctgcgtg atgctgatcg gttacacaat tattgctgtc   720
cctacaggta tcgtctctgc atccatgatg aaagaataca aaaaattaaa agacttacaa   780
tgtcccaact gtcataaaac ggggcacgaa gagaatgcca cttattgtaa atactgcgga   840
cataaattga aaatgatga aatttaccgg caggaaaaca cggcaactga tccggatcgg   900
actacttcat aa   912

<210> 3452
<211> 450
<212> DNA
<213> B.fragilis

<400> 3452
ttatatgtaa cgggtatcgg tagtatcggt gtcgatactt attttcgcag cctcaaaatg   60
cacatgaaga agtttatatt aatcaccttg acgttgcttt atgccgttgt ttcatcaggc   120
ataacgatta atttccatta ctgcatgggc cgtcttgcgg atgtagagtg gggaagtgcg   180
tccgtttgtg catcgtgtgg agagaagaag atgacctcac attgttgtaa agacgaggcg   240
cattacgtca aactggcggt agatcaggat gtgaaccacg taccggtaac taatctatta   300
ccggcagtga cagaactgtt acctgtgatg tatagtgctt ttataccatt ggaggcagaa   360
agtctgcgtc gaagtgttgc ttctttcaat ttcccacctt ggcaaacaga tattccgctg   420
tttgttcatc attgtactta tctgatttag   450

<210> 3453
<211> 267
<212> DNA
<213> B.fragilis

<400> 3453
atgcggagaa catcggacat accaccaaca acaacgtttc ccattgatcc gcctcccatg   60
ccggacatgt ctctaccgga agagctgccg gcagaaacac ctggagtacc cgcaggcgcc   120

```
gggctgccca ttcctcccat accggacatg ccactccccg aagaaagtgc aggcggcatc    180
gaagcaactg acgttacaga agtcgacgag ggagctgcct gtgccgacga agcggaaaag    240
cggttcagtg ccaactgctc gagttga                                        267
```

<210> 3454
<211> 207
<212> DNA
<213> B.fragilis

<400> 3454

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aaaagtacga ctggtagcac aagcatttat aaagaaaccg gcaacttcgg taaagggaaa     60
ggattgcttc ataaaagaga aacgaatgct ttgtcaaagg ggagaaaacg ccctgttgaa    120
agggaatggc agacctctcc caaaggaaaa atcgcacgac ccaaagaagg cagtcagcct    180
gccgaagaga aaaaacctac tatctga                                        207
```

<210> 3455
<211> 258
<212> DNA
<213> B.fragilis

<400> 3455

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aacaggcgga ctgatgcgga ttccaggtgg ggtacatacc ctccggaggt ccgtttcagt     60
ccgcctgttc cgtatcagat gttcactgaa cgcaaaatgt cggttgtttt atttctcaac    120
gattgttccc ggaagacaaa aatattatct tttcggataa acaaacctac tcaaaagaat    180
gaaacctgtt ttgcatgcct gagtacagta aaaaaatacg ggagaagtca tgctgcgttg    240
ttctatagcc gcttgtga                                                  258
```

<210> 3456
<211> 417
<212> DNA
<213> B.fragilis

<400> 3456

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accgtagacg catcacgcgg agaatggaga tacaggataa aagacaggaa cccattaaat     60
aacagccata tgtatttcat acactccata cagacctatg catcggtgaa ccggaaggga    120
agcgagctcc aggaatatgt.cctgcagctc aaggacagcc tgataaagaa cagggagttc    180
ctggatgacc tgaaagagga gctccactgc cggatcgggg agcttgacgc caagtatccg    240
cgtacacaac ccctgcatct ggatgcggca agttgccggg agatcatcca atggatcatc    300
cacgtgaaag gcaagccgga taacctgata tgtattattt cgattacgaa agtcagaaac    360
ctgctgggag aaggaaccgg tttctttccc cgggcaaaga caggaggtaa gggatga      417
```

<210> 3457
<211> 495
<212> DNA
<213> B.fragilis

<400> 3457

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aatgctttag ctatgataaa attgagattc agcttgttga tggctttgtt ggtagtggct     60
gtgtcggttt ttgcggataa tgcacctgcc aaagtgcaga cagccctgaa aaaaatgtat    120
cccaaggctg atggaatcgc ctggtcgcag acggtggtt actattgtgc cgattttatg    180
atgaatggtt atgaaaagaa tgtctggttc aatgcacagg acaatggca gatgacgcag    240
acagagtggg gagataccga tgaactttct gccacggtat ataatgcgta tgcttccgga    300
ccctattccg gctggcaggt agaggacgtc acttacgtag aatttccgaa atggcaaccg    360
attattgtca ttaaggtggg acagcaaaat gtagacatcc agtatcaact gttctatagt    420
tcgaatggga cattgctgcg tactcgcaat gtgagctata tggatgatat attgggcccc    480
ggtacttttt tgtag                                                    495
```

<210> 3458
<211> 186
```
```

<212> DNA
<213> B.fragilis

<400> 3458

```
aaccatacag caatgaaaac aaaatttgta aaaacgacag accgtaaagg cacttatatc    60
attgaaggtt catctgatgg ccagttcttt aatataaaga ggttcatttg tcaagttcaa   120
aaacaagaaa ccgaaaaaga gacgcaagaa ttagctgatt ttattttatc aaaacttaat   180
tcctaa                                                              186
```

<210> 3459
<211> 360
<212> DNA
<213> B.fragilis

<400> 3459

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gctgtgacag cctgccggag ggagtgcgaa aataaacaga ccattaaaaa cccaatattg    60
ataaaaatgg aaatacgagg aaaaatcatc gccgtacttc ccgtcaagga cgggatcggc   120
aagactaccg gcaatgaatg gaaaagccgg gaattcgttc tggagacaga agagagcaaa   180
ccgcagagcg tatgcctgca gctgatgaac gccaacatcg agcggtacgc cgtcgaggta   240
ggtatgaccg tacacgtcaa atttgacatc tccgcccgcc agtgggagaa ccgctggttc   300
aatacgctga cagcctggga agtgactgtc attaagcaaa aggaggaaca gccggcatga   360
```

<210> 3460
<211> 192
<212> DNA
<213> B.fragilis

<400> 3460

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agcaatgcgg cttctttggt tattttagcc atgattatgc gttttaataa aggttatcat    60
ttgcccgcaa atgtaggaat aaaagttcga aatcgtagtc tatctgatat aaattctatt   120
aaattaataa caaaaagcca caaaaagatg aaaatgtatc cggttttttg cgctcttatt   180
gcatatttat aa                                                       192
```

<210> 3461
<211> 1353
<212> DNA
<213> B.fragilis

<400> 3461

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accaataatt ttctctactt ttgcgtcgat ataacttttt taaggcaata taatcgtaaa    60
ctcaatatca ttatggcaaa acaattcaag cccgaaaccc tgtgcgtaca agcaggatgg   120
actccgaaaa agggcgagcc gcgcgtgctg cccatctatc aaagtactac ttttaaatac   180
gaaaccagtg agcagatggc ccgcttgttc gatcttgaag acagcggtta cttttatacc   240
cgtctgcaaa atccgacgaa cgacgctgta gccgccaaga ttgccgctct cgaaggagga   300
gtgggagcta tgttgacttc cagtggacag gctgccaatt tctatgccat attcaacatt   360
tgccaggcgg gcgatcattt tgtttgttcg tcggccatct acggcggaac gtttaacctc   420
tttggcgtga cgatgaagaa attgggtatc gatgtcactt cgtcagccc cgatgccggt   480
gaagaagaga tttcggcggc tttccgtccg aatacgaaag cactgttcgg cgagaccatc   540
tccaatccgt cacttgaagt gctcgacatt gagaaattcg cccgcattgc ccatagtcac   600
ggtgtgcctt tgattgttga taatacattt ccgacaccga tcaactgtcg tccgtttgag   660
tggggagccg atatcgtggt tcactccact actaaataca tggacgggca tgccaccagt   720
gtaggcggct gcatcgtaga cagcggaaac ttcgattggg aagcccatgc ggacaagttc   780
ccgggactct gcacaccgga tgaatcgtat cacggactga cctataccaa ggctttcggc   840
aagggcgctt atatgacaaa ggcaaccgcg caattgatgc gtgacctggg cagtattcaa   900
agtccgcaaa acgctttctt gttgaatctg ggcttggaga cgttgcattt gcgcatgcct   960
cagcactgtg gcaatgcaca gaaggtagcc gaatatcttg cgcagaacga caaggtggca  1020
tgggtaaact attgcggtct gccgggcaac aaatactacg aactggcgca gaagtatatg  1080
ccgaatggct cgtgcggtgt gatctctttc ggcttgaaag gcggtcgtga gttgtccatc  1140
aaatttatgg attcgctgaa gctggcggcc atcgttaccc atgtagccga tgcacgcaca  1200
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tgtgtgcttc atcccgccag tcatacgcat cgccagctga cagacgaaca attgatagaa   1260
gccggtgttc gtccggatct gatccgcttg tcggtgggaa tcgaaaatgc agatgatatt   1320
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```

<210> 3462
<211> 684
<212> DNA
<213> B.fragilis

<400> 3462
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aaaggaaatt tacgtatgat gttgaacttc gactttgtat taagactgtt agtcgccgga   60
atcttaggtg ccatcattgg cttggacagg gaatatcgtg ccaaagaagc gggctatcgc   120
acacactttc tggtgtcatt gggtagtgca ctgattatga tcgtttctca atacggcttt   180
caagaaatca taaaagaaaa tagtgttaca ctcgatccaa gccgtgtagc ggcacaagta   240
gtcagtggga ttggttttat cggtgccgga acgattatct ttcaaaaaca gatagtcaga   300
ggactgacta cagcggcagg gatttgggcg acagccggaa taggcctggc agtaggcgcg   360
ggcatgtacg tcataggtat tgctgccatg gtactgaccc tgattggtct tgaagtgcta   420
agttacctgt ttaaaagcat aggaatgaaa agctcaatga taactttttc gaccgataac   480
aaacaagtac tgaaaggagt ggctgaccga tttaattcca aagattacct catagtgtcg   540
tatcagatgg atacacagaa gcacggaagc atagaaacct atcaagtgac aatgatcatc   600
aaatccaaac ggaacaatga cgaaggacat ttgctatctt taatacaaga atttcctgaa   660
gtgacagtag aacgaattga ataa                                          684
```

<210> 3463
<211> 276
<212> DNA
<213> B.fragilis

<400> 3463
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catcaaattc ttatgaccat gtccgatttc aaccccagac cgtccgacaa actgacggca   60
agcgaacgta aagaactgga tacctccgag ttcggcatac cccaattaag agagttcccc   120
atccacgacg ccgcccatgt acgcgcggca gaagcctact tcaggtatgc gcccgaagag   180
tataaagcgc agttggcacg gaacatcctg gccaaagcac atctgttggg agtgaacgta   240
aaaagccccg ccatcctgga gtgggcagag aaataa                            276
```

<210> 3464
<211> 1437
<212> DNA
<213> B.fragilis

<400> 3464
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gcacctgcct atccgaatga ttcatgttgt agaaatatta gcatcacaat tatgagtacc   60
aagcatgcaa aagctgccga aaaattcctg gaaaatccgg tgatggcagc atggcacaac   120
gagacccttt ggatggttcg tgccaagaga gacaagatga gcaaggaagt acccgagtgg   180
gaagaattgc gtgataaggc atgtgcattg aaactttact ccaacagcca ccttgaggaa   240
ctcttgctgg agtttgagaa gaatgccaca gccaatggag ccatcgttca ctgggcaaaa   300
gatgcggaag agtatcgtgc catcgtttat gaaatattga gcagtcacgg agtaaagcat   360
tttgtgaaaa gcaaatcgat gttggcagaa gagtgcgaac tgaacccgtt tctgatagag   420
aaaggaatcg atgtggtgga atccgatctc ggtgagcgta tcctgcaatt gatgaatctg   480
gcaccgagtc atattgtact tccggctatc cacatcaagc gtgagcaggt aggagaactt   540
tttgagaaag aaatggggaac ggagaaaggg aattttgatc ccacttatct gacccatgcc   600
gcccgaaaga acttacgaaa tatctttctg aatgcagaag ccgctatgac gggagccaac   660
tttgctgtgg cgtctaccgg agatattgtg gtttgtacca atgaaggaaa tgccgatatg   720
ggtacatcgt gcccgacact gaatattgct gctttcggca tggaaaagat tgtgccggac   780
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gtagataatg gacggagtgc cctgctggcc catcccgacc atatcaagac tttgaactgt   960
atccgatgtg gtgcctgcat gaatacgtgt ccggtgtatc gtcggagtgg aggatattct   1020
tacacttact ttattcccgg acctatcggt atcaatctgg gaatggcaca tgatccggaa   1080
```

```
aagtattacg ataatctgtc agcctgttct ctctgtatgt cttgttcgga tgtttgtccg   1140
gcaaaggtgg acttggccga acagatttat aaatggaggc aggatctgga taagattgga   1200
aaagctaata cgggtaagaa aataatgtcc ggtggcatga aggtgttgat ggatcatcct   1260
acgcttttca atgcggcgct ttgggctgct ccggtagtta accatttgcc acgtttttatg  1320
aagtataacg atttggatgc gtggggaaaa ggacgagaac ttcctaaatt cgcgggcgaa   1380
tcgtttaacg agatgtggaa gaaaaataaa gtgcagggaa aggaggaaaa caaatga      1437
```

<210> 3465
<211> 288
<212> DNA
<213> B.fragilis

<400> 3465

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aaactgttgt atatgagttt ctcaggattc gtttttgata tgatcaggcg caataaggag   60
aacagagacc tgcttactct gcgccgggaa cggatgaagg accttcaagg taaaatgtac   120
cggaaaggga cgcttcaaaa tccgaatgta accctggaag agctggagaa gatagaaaag   180
gccacccgtg aaaaggaaaa agcggaaaca caatattatc tgcgcgccac gctgatcttc   240
ctgaccgtga cagccatact ggcactcata ctctggtgga tattgtag              288
```

<210> 3466
<211> 453
<212> DNA
<213> B.fragilis

<400> 3466

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gtcatcgttc ataaacagct atatactaac actatagcac atccaccttc gttctggcac   60
gaggcttgca atattattat cgtaagcaag tggcttacag aaaaacaaac ttcatttatt   120
aacttaaaac ttacaattat gaaaaaggta ttagtagcag tagcattggt tatgggatta   180
ggtagctcag tagcattcgc acagaacgca gaaaacgcta acgcagtggt agcaaccgca   240
caagctccgc aagacgagta tacaaagatt gaagtaaagg atctgcccgc agcagtaacc   300
gaagctctcg gaaaagctta tcctgaatca accatcaagg aagcatcggt aacaactaaa   360
gaagaaggta aattttacaa agtagtcgtt actcagaaag acggaacaga cgtgactgtg   420
gtattgaacg aaaaagggga agaagtaaaa taa                               453
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<210> 3467
<211> 1632
<212> DNA
<213> B.fragilis

<400> 3467

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gcaacgatat cggcacagaa cggaggaacc attatgaaga agtatgagaa ccaactaccg   120
caagccggca gaggaaacgt acatgttgcc taccaaggca aagccatcga ccaaatgatt   180
tacgatttta tggaagaaca gggaataccg ggcatgacac ttgccatcgt acaggcacct   240
tatattccgc gtgtagcagg ctacggagtg acggaccttg aaaaaggaaa ccttgccgct   300
gccaagactc tttggcccat cggtcccatc tcacaaggat atgcagccgt ggcagtgatg   360
cagctctacg aaaaaggaaa actagacctg aacgacccga tcggcaagta cctgaaagat   420
atacccgaaa actggaaacc gatcagtatc cttcagttga tgcaacacag ttcgggcatt   480
gcggactatc gtaatgaaaa gggattcgat gtatcggccg attatcgccc ggaacaactg   540
atcgaaacgg tagccgccat tccgctcgcc ttcgaaccgg ggacagacgt gaaacagagc   600
gccacaaact ttctgctact gacttctatc atcgaaaagg ccggcaagat gtcgtatcac   660
gactttgtga aaaagtatca gatcgactac ctgggactga acagacatt cttcggcgaa    720
gacctggcga aagtaaaaca ggaggacgtg accctcaccg gcaacgtgca tcagacattc   780
aaaaaagata aagactacat caatccctcg gaaacgacta ccggatatgt ggaaaaagag   840
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tgggcatcag ccgagaatgt gagccactgg gacatcggac tggcgggaag tgcattgatc   960
gaaaagcccg aaaaccgtga catggtgtac aagccaaccc ggctggccaa cggcaaggta   1020
gtacctgcca tggcaggatg gcagttctat aaccacaacg gcctgatgga catcaaaggc   1080
aacgtatcgg gccattcggc tttcctgagt cgatttacgg acgcctcgga gctagtgtgc   1140
```

```
gttaccctac tggccaataa agagggggta gacctgacaa atctgggacg ccgtatcgca    1200
gccgctttcg acagtgataa gatgggtacg ggagccaacg acaacctgct ctatacttat    1260
gaaagccagt tcagcgtgcc cgaaaccatg acgcgcatcg agcagaccct ccacacgatg    1320
ggcgttcccg tctttgccaa gttcgatcac gggaaaaacg ccgaagaagt gggattacaa    1380
ctccgcccca accaggtcat cgtttttcggt tcaccgaaag ttggcacaaa actgatgcag    1440
gacaacccga gtatctcgat cgaacttccg ctgaagatct ccgtttggga ggacaagaac    1500
ggaagcgtat gggccacttt cccacagatg aggacgatgg cggccgaata cgggctggaa    1560
gccgaaccgg taatcggaaa gatgcaagaa ctactggaga aaatcgtaat taaaggggca    1620
agcgtatact aa                                                        1632
```

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<210> 3468
<211> 903
<212> DNA
<213> B.fragilis
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<400> 3468
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attgaattct cacatgaaga agttattctg gaaaaagaaa tttcatggaa ctatctttta    180
tttgttctcg aaggagaatg tatcatcaat tgtaatcagt ttagagaacg tttgtttcag    240
gctaactgta tggtgctact ccccaaaacg gctatggttg aaattaaagt catagccggt    300
acccggttac tctccttatc ctttgatgtt cccttaaacg tatgtgataa gttcatatta    360
caatcgttaa caggactatg caggaaactg gattataatt ccagtcact cgctatccgt     420
tatccccttc ctccttattt ggagattgtt acgtattgcc tgaccaataa gatggattgc    480
ggacattttc acactttgtt gcaacaggaa ttattttttt tactccgggg tttttatctg    540
aaagaagaat tagccttatt gttccacccg atcatctcag cagaattaac tttcaaagat    600
tttgtcattg gcaattattt taaagtaagc aatgtaaatg atctcatctc cctctccaat    660
atgtgtaaaa gcagctttta ctgtaaattt aaagaagtat tcggaatgac ggccaagcaa    720
tggttgctga acaacggaa cacacatata ttaaataaag tgatgacctc agagactaca     780
gtcggagagt tgatggagga gtttagattt gagtcacaag ctcatttcac ccactattgc    840
aagcagcatt ttaattgcac accacgggag ttgattatga aatatcaggt tgtaaatcag    900
tag                                                                  903
```

```
<210> 3469
<211> 192
<212> DNA
<213> B.fragilis
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<400> 3469
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ttcaggagtg agtctcctct ttattgcccc gatgtgatta aaaacaagct tttgagagga    120
ttattgaaaa aatctccctt ccccagtcac ataattaaaa agaaagatgt aattttgcat    180
gccaaaaaat aa                                                        192
```

```
<210> 3470
<211> 846
<212> DNA
<213> B.fragilis
```

```
<400> 3470
aatagattta actgtaaaac aactcaggac catctaagta ttcataatca ttacagaatg    60
gctaaaaaac atcgtaaaga gagccttgat gccctttca gggaaaaggt attgctggaa     120
atgctgaaaa tagcaggagt tggtatgtgg acatacagta ccgaaacggg aagattacgt    180
tacattggat cgccgatac catccatcgg cacgacgaat tgcagtatgt cgatccagcg     240
gattatctga aattgatgaa cggtgaagat ctgcagaccg tcactcagtt tatggccgac    300
attcatgccg ggcgtcctcc ccaggaagga atccgttata agattcatgg taacggagag    360
gactttatc ttgaaaatca tgttgtgacc tgccaaccgc tgggcaatgg attctattat      420
ctgaaaggat acgtcaagaa tataaccgca caggtgatgg aagccaaccg tctgtgtata    480
gagaaggagc gcaccgaaca ggcggaccgg ttgcgctcag ccttttttgc ccacgtcagc    540
```

```
agggagctgc ggggacctct caaccgaata gaagaacttg cgtcgcagat ggtacatgcc    600
gaaagtgtag aggagcggga agagtgtttc caccggatac aggagaacag gcggatggcg    660
atgaaaatag cagatgccct gcatgcggtg tcgcaacttc cggtcagcac atatgagcct    720
taccactcac ccatgcagct ttgcctgata taccgtgact tgttgatgga gaacggctac    780
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tcctga                                                               846


<210> 3471
<211> 1560
<212> DNA
<213> B.fragilis


<400> 3471
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gaacgtgacc gcatcgcttc tctgggtgga ggcgcagcca agattgatat acagcacgaa    120
agcggaaaaa tgaccgcccg cgaacgcatc gacatgttgc tggataaggg tacatttgta    180
gagctggaca agctgatggt gcaccgttgc accaactacg gcatggaccg gaacaagatt    240
ccgggagacg gcgtcgtgtc gggttacgga aagatcgacg gacggcaagt atttgtctat    300
gcctatgact tcaccgttta cggcggttcg ctatcggcat cgaatgccaa gaagatagtc    360
aaggtgcagc aactggcttt aaagaacggt gctccgatca ttgcactgaa cgattcgggc    420
ggtgcacgta tccaggaggg aatcgaaagc ttgtcgggtt acgctgacat cttctaccag    480
aatacgatgg caagcggagt gattccccag atctcggcca ttctgggtcc ttgtgccgga    540
ggagcctgct actctcccgc actgacggat ttcatcttta tggtgaaaga gaaaagccac    600
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gagctgggcg gcgccatgac acacagcagc aagagcggtg tgacacactt catggccaac    720
accgaagaag agctgttgat gtcgatccgc gagctcctct cattcctccc gcaaaacaac    780
atggacgagg cacgcaagca gaattgcacc gacgacgtca accgtgaaga cgcctcactg    840
aacagcattg tcccttccga ccccaacgta ccgtatgaca tgaaggagat catcgaaaga    900
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ggttttgcac gcatgggcgg acgctcggta ggcatcgtag ctaaccaacc ggcttatctg   1020
gccggagtgc tcgacatcga cgccagcgat aaagcaagcc gcttcatccg cttctgcgac   1080
tgcttcaaca ttccgctgat tacattcgaa gacgtaccgg gtttcctgcc ggggtacacc   1140
caagagaaca acggcatcat ccgccacgga gccaaaattg tgtatgcttt tgctgaagca   1200
acagtaccca agctgactgt aatcacccgg aaggcttacg gcggtgctta catcgtgatg   1260
aactccaaac agacgggagc agacgtgaac tttgcctatc cgagtgcaga gatcgctgta   1320
atgggtgccg aaggtgcggt gaacattctg ttccgcaagg cggacgcaga gacgaaagcc   1380
caagagctga atgcctacaa agagaagttt gccacccoct atcaggctgc cgaactggga   1440
ttcattgacg aaatcatcct gccgaagcag acccgcaaac gcctgataca ggcattggag   1500
atgacggaga acaagatgca gaccaatccg cccaagaagc acggaaacat gccactttaa   1560


<210> 3472
<211> 1056
<212> DNA
<213> B.fragilis


<400> 3472
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tgggttctat tactcatttt gtcagcatcg tgcagtaaag acgaaataca gatcgtagat    120
caggatacaa gttggcaaat ggacaataag tatatcgaag aagatatccg tgagcaactc    180
ggcatcgatc cgttcacaga tctggtgtac ctgggatatt acggcaatcc ttatacacag    240
ttggaggcaa tcaacgacct ggtaaatacc acactggtgg gaaagaacga ctttcgttc    300
aaagtaaaag tgacgaagcc ttacaaagaa gatatcaaag tcaatcttat gaaagaagac    360
aaactggtaa ccgatttttcc agagatggcg gagggaatac ctctttttcc gagcgaaaac    420
tgcacctttg aaggcggtgt gctgaaagcc ggcgaactgg aaacaacggt gaaactaacg    480
attaaggatg ttgagaagtt aaacaaccta tcgggttatg tgatggccat aaagctgacg    540
atggaaggat cgcatgagca tttggccatc gcccgaaccc gctcggcata ctttgtgaaa    600
ttaaatcttt ctatacgcct ggacaatatc gattcaagca ataaaaagat cgaaggaaaa    660
ggattcaaca aagaaatcag tttttaaatcg gacatacgcc cggataaatt aggttcgtta    720
aacgatggca acttcacagc caacaactgg tatacctcca acgcgaacaa ttatctgacg    780
```

```
ataattctac cggaaaaaca atcgctcaaa gggttcaggc tggacaccaa cacctctcca     840
agcggctcgt atatgctcaa atcctgtaga gtgatggttg aaacaccgga tgggaattgg     900
gtgaaccatg gagtattcga ccgcaagagt atggatggaa ttgcttatat aagctttaaa     960
aaaccggtgg aatgtactaa agtgcgtttc gagaatatga tggccttcaa tggcagattt    1020
tccgttgatg taaatgaagt cacagctttc cggtaa                              1056
```

<210> 3473
<211> 3285
<212> DNA
<213> B.fragilis

<400> 3473

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tgttttattc tacaaacggc tgcctttgct caaaacaacg taaaaataac aatcaagaaa      120
aagaatatca cgttgcagga agcattgcgg gaggttgaga aacaatctga ttatctgatc      180
gctttcaacg aatccaaact tgagaaaacc aagcgcgtta acctgaatat taatgctgaa      240
tctctggata agacactggc ttctatcctg tccggaacgg ggctttccta caaaatcaaa      300
gacaaatata tcatgattat tccgcaatca aaagtggaag tcgaaagcaa aaaactgtcg      360
gggatagtga agatgacaa aggagatccc ttgatcggag tcaacgtctc cttcaaaggt       420
agccccacag gaaccgtcac cggtcttgac ggacgatttt ccattctggc tgccaaagga      480
aatatcattg aattctccta cgtaggctat accacccaat atattacagt gggcgatgct      540
tcttcgctaa ctgtcgtatt ggaagaagac gccaaggcac tggacgaagt agttgttacc      600
gcactgggta tcaaacgtgc ggaaaaggca ttgagttata gtgttcagca ggtaaaatcg      660
gatgctatca acgatgtgaa agatgccaac ttcgtgaacg gattgaccgg aaaagttgca      720
ggtgtatcca tcaaccggag ttcctcgggc atcggcgggg cgaccgtgt tgtcatgcgc        780
ggagccaagt ctattgtagg aaacaataat gtgctctacg tggtggacgg tatgcctatc      840
ggcaacccct caaaaggcga aatcaacaat gactatagca ctccgggagg aggtgaaggt      900
atttccgact tcaacccgga ggacatcgaa agtctatcga tactgacagg tccggctgcc      960
gcagccctgt atggttcatc ggcagccaac ggtgttatcc tgattaacac caagaaaggg     1020
caggaaggca aactgaaaat ctcgatctcc aacaatacgg agtttatgac cccgtatgta     1080
atgccggaat ttcaaaaccg atacggtaat gcaaaaggat catacaagag ttggggtgag     1140
atgctgcaac agccttcaac gttccgcccg aaagacttct tcaagacagg agccaatatc     1200
atgaatgccg ccaatttttc agtaggaaac aaaaataatc aaacgttcgt atcggtggca     1260
acaacaaact ccaccggcat cattcccaac aacgaatact atcgttacaa cttcacatta     1320
cgcaacaccg cgagtatgct gaatgacaaa ctccatctcg acctgggagc cagttatgtt     1380
ctgcagggag accagaatat gctgtcggca gggcgttact ttaatccgct ggtacctctg     1440
tatctctttc cgcggggtga agatttcgaa gcagtcaagg tgtacgagcg ctatgacacc     1500
aaccgaaaat tccccataca ggaatggtct tatggcgatc agggcctgaa tctggaaaac     1560
ccgtactgga ttgtgaaccg cgaaatgttt gtttccaaaa agaaacgtta catgttttat     1620
gccaatgtaa aatacgatat tctcagttgg ctgaacatag caggacgtat acgtgtggat     1680
aacaccaaca ctacttccga gcgcaaatta cacgcttcga caatcaagct gcatgcccaa     1740
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ctgagacttt tcaacaacaa aatcaatatc gatgccacgg tgtacctgac agataccac       2400
aaccagacct tcctttccag catgtctcct gcttcgggat actcgggctt ctatgtacaa     2460
gcgggtaaag tgcgcaacaa aggtatcgaa ctgtcattag ctataacga ccggttcgga       2520
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gtgcatgact ataagaaccc ttcggacggt tcgctgttca gcatcactga actgaccctg     2640
caagataagg gaggagttta cctgcgggaa aaggacgcca tcggagacgt atatgtaaaa     2700
ggcatccttg ccaggggcaa agacggtaaa ctgatcgaag aagaaggagg atataaagta     2760
gaccgctcac aacgcatcaa gataggatcg gtcaatccgg acttctcgat cggctggaga     2820
```

```
cacaatgtca cctggaacaa cattactctg gacctgctgt tcaacggacg tttcggaggt   2880
attgtcacct cttccaccca agcattcctt gacgactacg gtgtatcgaa agacacttat   2940
aaagcgcgtc agaacggtgg tgtatgggtg aacggaaccc aatacgacgc ggaaaaatat   3000
tatacgacca tcggcggcga acaactgatg gcatattatg catacaaagc aaccaatatt   3060
cgtcttcaag aagccagcct gagctatacc ctaccgggca aatggttcgc ccatgtgatc   3120
aaccggctga cagtttccgc catcgggcgc aatttgtgga tgatctataa taaagcccca   3180
ttcttgattc aaattacctc ttcgacaggt acctataacc ggggagatgt ctttatgcca   3240
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```

<210> 3474
<211> 297
<212> DNA
<213> B.fragilis

<400> 3474

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agcacatgtt tcgctgttcg gtccgcttcc gagaaaacgg caatgctcgt tatttccatc   60
tcccgacagg agcgcatcac cctcacggca atttcaccgc ggttggcgac taagattctt   120
ttaatcatat tcatttctca attaaatgca tatacatatt cgcgcttttc caccctgcgg   180
acatacgtcc acccgatgaa aacacagtat ttctacgatt tggggcttaa caacgatgct   240
ttctttccta acccacgagg agagaatgct cttattcacg aatggcaggt cttctga       297
```

<210> 3475
<211> 540
<212> DNA
<213> B.fragilis

<400> 3475

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atgatttaa ataacgagtc taataagaag aagaaatttg agcagttttt cattatgact   60
tatcccaaag tcaaagcgtt tgcatggaaa ttgttgaagt cagaagaaga tgcagaggat   120
atagcccagg atatattcgc aaaactatgg actaatcctg agatttggga aaatcaggaa   180
acttggaaca gctacatata tactatggtc cgcaaccata tttataactt tctaaaacat   240
aaatcaatcc ggcagaccta tcaggagcaa tgcacaaaag aggagccggc tatatccgaa   300
actgacattc acgatcaact ttatgccaag gaaagtgaac ttctgataaa acttacgatt   360
gccaatatgc ccgaacagag gaggaaaatc ttccgaatga gccggacaca ggaaaaaagt   420
aatcaggaaa tcgccgacga gctggatatt tcgatccgca ctgtagagcg ccacatctat   480
ttggcactaa tcgatttaaa aaaagtactc ctcaccctat ttttttctta tctcggttga   540
```

<210> 3476
<211> 2310
<212> DNA
<213> B.fragilis

<400> 3476

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cctttattaa aacgcataat catggctaaa ataaccaaag aagccgcatt gctctatcat   60
tcacagggca aacccggtaa aattgaggtg gtacctacca aaccctacag tacacaaacc   120
gacttatctc tcgcttactc tcccggcgtg gcagaaccat gcctcgaaat agaaaagaac   180
ccacaagatg cttataaata tacagccaaa ggcaatctgg tagctgttat ctcaaacggt   240
acagctgttc tgggattggg tgatatcggc gctcttagcg gcaaaccggt aatggaaggt   300
aaaggtttgc ttttcaaaat ctatgcagga atcgatgtat tcgatatcga agtcaatgaa   360
aaagaccccg acaaatttat cgaagccgtc aaagccatcg cccctacttt cggggggtatc   420
aacctggaag atatcaaagc acccgaatgt tttgaaatag aacgccgcct gaaagaggaa   480
ctcgacattc ccgtaatgca tgacgaccag cacggaacgg ccatcatctc cagtgcggga   540
ttggtcaatg ccttgcaagt agccggtaaa aagattgaag atgtaaaaat cgtagtaaac   600
ggtgcaggtg cttcggccgt atcgtgtacg aagctttatg tatcattggg cgcacgcctt   660
gaaaacattg tcatgctcga tagcaaaggt gttatcagca aggcacgcac cgacctgaac   720
gaacagaagc gttatttcgc aaccgaccgt accgatattc acacactggc cgaagccatc   780
aaagatgccg acgtattctt aggactctcc aaaggaaaca ctttgtcgca ggatatggtg   840
cgcagcatgg ctccgatgcc tatcgtcttt gccctggcaa acccgacccc ggaaatctct   900
tacgaagacg ccatggcagc ccgcccggac gtattgatgg caaccggacg ttcggattat   960
```

```
cccaatcaga ttaataatgt aatcggtttc ccgtatatct tccgcggagc tctcgacacg   1020
caagcgaaag cgatcaatga agagatgaaa attgccgctg tacacgccat tgccaatctg   1080
gccaaacagc ccgtacccga tgtagtgaac gaagcctacc atgtgaacaa cttcaccttc   1140
ggtccggaat attttattcc gaaaccggta gatccccgcc tgatcacgga agtatccatc   1200
gccgtggccc gtgccgctat ggagagtggt gttgcccgta agaatataga gaactgggat   1260
gattataaaa cacatctccg cgaattgatg ggacaggaat ctcagctgac ccgccaactc   1320
tacgacacgg cccgtcgcaa tccgcaacgt gtggtatttg ccgaaggcgg acaccccaac   1380
atgttgaaag ctgctgtcga agccaaatcg gaaggaatct gccatcctat tatattaggt   1440
aacgaagagc gcatcgagaa actggccaaa gaactcgacc tgagcctgga cggaatcgaa   1500
atcatcaacc tccgccacga ccgtgaagcg gaacgccgtg agcgctatgc acacatcctc   1560
tcccagaagc gtgcccgcga aggtgctaca tacgaagagg ccaacgacaa gatgttcgag   1620
cgcaactact tcggtatgat gatggttgaa accggagacg cagacgcttt catcaccgga   1680
ctgtacacca aatacagcaa taccatcaaa gtagcgaaag aagttatcgg catccgtccg   1740
gaatacaaac atttcggaac catgcacatc ctgaactcca aaaagggaac ttacttcctg   1800
gctgacactt tgatcaaccg tcatccggat acttccactt tgatagatat agccaaactg   1860
gccgatcaaa ctgtcagatt cttcaatcat actccggtga tctccatgct gagctattcc   1920
aacttcggtt ccgaccaggc aggaagcccg ctgaaggtac acgaggcagt ggcctatatg   1980
caacaggaat atcccgaact ggcaattgac ggtgaaatgc aagtgaactt cgccatgaac   2040
cgcgagctcc gtgactctaa gtaccctttc acccgcctca acggcaagga tgtcaataca   2100
ttggtattcc ccaacctgag ttctgccaac gcaggatatc agctgctgca agccatggac   2160
ccggataccg aattcatcgg cccgatccag atgggactga acaaacctat ccactttacg   2220
gatatagaaa gctcagtacg cgacatcgta aacatcacag ccgtggctgt gatcgacgct   2280
attgtagaaa agaaaaaagc taataaatga                                    2310
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<210> 3477
<211> 954
<212> DNA
<213> B.fragilis

<400> 3477

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ctgatattaa aaacaaaaaa agatcttata agttggtgct tttctatctt tttattagtt    60
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ccttatttct ctccggaatt taaagtgata cctcagtata ttataatgaa agagggagag   180
tgcatggaat tgaataatag aactaccagt ttttttattt ttattctttc aggtgaaatt   240
acaattagtt ttgagcagta cactaatcgg tccgtgttgg aaaatgaaat gtttttttctg   300
cctaaaaaca actgtttttaa atggaaagct gttacgcaaa cagtgttgat tcttacagga   360
tacaacgcca ccattttccc atgtacgagt gtcagggcaa gaatttttata taaaataaag   420
gccggcgtga agttcgattg ccgtggagta gtgatgaagg acgaagtcaa agtagtagtg   480
aatcaaatga agcattatct tgagtccgga ataaactgtc atcatatgta cattttgaaa   540
cataaagaac tgtatctcat gttcaagcac ttctatacgt atgaggagat aatacagata   600
ttttatctta tattaggcag caatccgctc tttaacgaac gggtgttgga taattatttta   660
aaagtgaaaa ccgttaaaga gttagccggt cttttagggt atggcataaa gacgtttgaa   720
aagctttttca gagagaattt tgatgaatct ccttataaat ggatgcagaa acggaaggct   780
ttgcagatac aacaaagatt gatgaatccc gctatctcat tgaagcaaat catgtatgaa   840
tttaaatttg caacctcttc gcattttaat ttttattgta agcaacattt gggtgccgct   900
ccgatgcaaa taagaaacag caataaggat gataatatga gtaccttgcc ttaa          954
```

<210> 3478
<211> 2313
<212> DNA
<213> B.fragilis

<400> 3478

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acgagcataa aacggaatga agtactaacg aaatatacat accatactat gtcacattta    60
cctaccttga ttgctgacct tgccttaata ctgatgtccg caagtatcat tactcttttta   120
tttaaatggc tgaagcaacc cctggtcctg ggatatatcg ttgccggatt gctggccggg   180
ccttatgtcc gcatcttccc gactgttggc gatatggaga acatcaatac ctgggctgag   240
ataggagttg tctttttgct ttttgctctc ggactcgagt ttagctttaa aaaattgatg   300
aatgtcggat cggcagcgtt tattacggca acaaccgaag tgatcagtat gttactgatc   360
```

```
ggttttatgg tggggcatct gttggggtgg agtacgatga attctgtgtt tctgggtgga    420
atgttgtcca tgtcgtctac cacgattatt attaaagcct ttgatgatct tggtttgcgc    480
agccaacggt ttacaggcat tgtgttcgga accttggtgg tcgaagacct gatcgctatc    540
ctgatgatgg tcatcctttc tactatggcg gtgagcaaag agtttgtggg tgaggaactc    600
ttgatgagtg tcctgaaagt tgccttttc ctgattttgt ggtttctggt cggtatattc    660
atccttccgt tcttcctgaa aaaagcaaag cggttgatga ataatgaaac tctgttgatt    720
gtctctctcg ggctttgcct ggcaatggtc gtgctggcta cccgtaccgg tttttcggct    780
gcgctgggtg ctttcattat gggatctatt cttgctgaga cggttgaggc cgaacatata    840
gaacacatca tacagccggt gaaagatctt ttcggagcta ttttctttgt atccgtcggt    900
atgctggtca atccgtctgt cctgcttcag tatgcctggc cggtggttat cattacattg    960
gtgactcttg tgggtaaatc gattttctct tcattggggg tcttgctatc cggcgaacca   1020
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gcggtatccg ttatcactac ctttaccact ccctatttta tccggttggc aaatccgttt   1200
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ggaagagtga ttatttacag tgtcctcctt actgctattt ggctgttgtc cgttcagacc   1380
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tgcctgctca cccttttgct gatgactcct ttcttgtggg ctcttgtttc agataagtac   1500
aattctccgg acgtgtttct gaagttgtgg aatgacgaca attacaatca cgggaggctg   1560
gtagcgttga ttctgttccg tgtttcggtg gctgttttt tcatagcggg agttgtcatc   1620
agttatttta gtcttaatta cgggataggt attgtcatag ctgttgccgt gttgggactg   1680
atacttcttc tcagggagaa cctcacccaa tattcgcatt tggagaacca cttcctgacc   1740
aatctgaacg gaagggagga agcagcccgg aatcgctatc cgctgaagag ccgtttcaac   1800
agtgagttta gtgataaaga tatcgagttg acctccgttt gggtatctcc ttattcatct   1860
tatataggga agtcgctgga ggaacttcct ttcaggcgtg agtttggtgt caatgtagtg   1920
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caggataagt tgatcgtggt cggtacagac ggccagttac agaagtttcg ttcggaactc   2040
gacatccggc aggatttttcc ggacgaaaag aatgtgcgac aagaggtgac gcttcactct   2100
ttcacggtag atgaagaatc tccgctcctg aataaaagta ttgcccagtc acggttggga   2160
aaacagtatg acagccttat cgttgccatt gagcgggaag acgagttgat ttccatgaat   2220
caaagtacgg ttttccgttt gggagatctg gtatggatag tgggtgacag ggagaagatc   2280
agacaactct tgatgcggaa aaagcatgtg taa                                 2313
```

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<210> 3479
<211> 366
<212> DNA
<213> B.fragilis

<400> 3479
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gctaaaaagt ggctgacaga aaacaacatt gagtatacta accgccttat tgtggacgat    120
aatcccacag tagaagaatt gaaagcctgg attccactaa gcggactacc cgttaagaag    180
ttttctcaaca ccagtggtgt agtatataaa gagctgaaac tcagcagcaa gcttcctaca   240
atgactgaag aagaacagat cgcccttta gctaccaatg gcaaattagt gaaacgcccg     300
ctggtagtga ccgagcgctt cgtattggta ggatttaaac ccgaagaatg ggaaaaatta    360
aaataa                                                               366
```

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<210> 3480
<211> 207
<212> DNA
<213> B.fragilis

<400> 3480
tataagataa aatatctgta ttatctcctc atacgtatag aagtgcttga acatgagata     60
cagttcttta tgtttcaaaa tgtacatatg atgacagttt attccggact caagataatg    120
cttcatttga ttcactacta ctttgacttc gtccttcatc actactccac ggcaatcgaa    180
cttcacgccg gcctttattt tatataa                                        207
```

<210> 3481
<211> 834
<212> DNA
<213> B.fragilis

<400> 3481
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gagcttacaa aagccaccaa gcaccccatt atgttcgggt ggttcaatgc ctggcaaccg    60
gacggagcgg gaaaatatcc ccgcctgtct cttttgccgg acagcatgga tgttgtttcg   120
atatggggaa actggcactc tctgagcgaa gaaaaaatca aagagttgcg gagcgtacag   180
gccaaaggaa ccaaagtcat tatcggctgg attatagaag atataggcga ccagataaaa   240
tggggacgcg accaatggcc cgccgatgat actcaagcca tcaaagagta tgcgcaagcc   300
atcgtagaca caatcaacaa atacggctac gacggattcg attatgacta tgagccgtca   360
tacgcatcac cgttcaagcc gggcaatcat tgcggcaatt tgacttcttg ctcacgcgat   420
tataataaag agaaagaaat cttgtttatg aagaccatgc gcgagctgct gggcccggac   480
aaactgtttc atctgaacgg ctctatccat tggctggacc cgcgtgcggc acagtatttc   540
gaccgttttg tcgttcaatc ttacaacgga tcggcttcca gttttgagag atggaccaat   600
gatatccaaa accggttgaa tatcaaaccc gaacagctcg tatttacgga aagctttcag   660
aacaagcccg gtgcacgaag cagattccca ggtacatacg ccggttacgt ggcttccaaa   720
caaggcaatg taggaggaat cggagtcttt catattaatg aagacgcatt tgaagacgaa   780
gcctatgtta acatcagaaa ggccatctct atcatgaatc ctcccgtaaa ataa          834
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<210> 3482
<211> 891
<212> DNA
<213> B.fragilis

<400> 3482
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ttcactaaaa agacctattt ttgtaggcaa aataaagaac atgatatgga aaaaagaaac    60
ccgcttaccc tcacgctcga ccagccgttt gtggcaggga ccgatgattt ttctcccttt   120
tacaaccgtt tgcataaact caattgtgcc attatccttt attgccgtgc cggccgtggt   180
acaatggcca tcgatctgaa gaaatacgag ataacggtaa atacccaggt tgtactcctt   240
ccgggtgctg ttatcagcct tgatgagaag agcgatgatt ttcgggtctc cttttttcgct   300
tcacatattg aaatgtttcg tgaggcttgt atccgttttg aaccctcctt ttttcatttt   360
ataaaagaga agccctgtta tacacttcct tccgaattta ccgcccccat aaacggtctc   420
ctgcatgcta cgtctgctat ttatgccgat accgatcatc gtttccgcaa ccagatagcg   480
cgcaatcacc tgcaaagttt cctgcttgat gtatacgaca aagtacaccg ccttttcacc   540
cataaagaga ttgagggcgg cagtcgtccg aacgaacttt ttcataagtt cgttgctctg   600
gtgcacgaat attgctgttc gcaacgggat gtcgttttct atgcaggcaa actctgtatt   660
tctactaagt acctgacgag catctgtcgt tcgctgacag gtcattcggc caaaaaaagtg   720
attgatgatt ttacggcact tgaaataaag gtactcctcc aatcgaccga tctcagtatt   780
caggagatag cagacaggct gaatttttccc gaccagtcgt atctgggtag gtattttaag   840
cgacacgaag gggtttcgcc gatggagtac agggcggaat tggcaggata a              891
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<210> 3483
<211> 585
<212> DNA
<213> B.fragilis

<400> 3483
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aattcaaaaa aagtaatcat gttaaagata ttggtgactt atgccgtaca aggcgaattt    60
acagaaatca agtggcccga cgtggaggta tattatgtgc ggaccggtat tggaaaagtg   120
aaatcggctt ttcatttgtc cgaggctatc cagcaagtga agcccgatat tgtgatcaat   180
cagggaacag ccggaactat taatcatcag gtaggggacg tttttgtctg ccgtcatttt   240
gtcgatcggg atatgcataa gatgaccgga ttgggaatgg aataccgtat tgattcgtcg   300
gaattgcttg ctgccagggg cttttgccaa cactggaccg aatcggcaac ctgcaatacc   360
ggtgatagct tcctgaccga gctgacggat attgagggag atgtggttga tatggaggct   420
tatgcgcagg cttttgtatg cagagccaaa gaaattcctt ttatttcggt taagtatgtt   480
tcggatgtga ttggacagaa ttctgtgaag cactgggaag accgtttgga agatgcccgt   540
gcaggcttat ctcacttttt caatgtttta aaagaaagta tatga                    585
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<210> 3484
<211> 1185
<212> DNA
<213> B.fragilis

<400> 3484
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actacttcgt atgcttatat caaactattc ccgtacgcaa taggcacttt cagcttcaaa   120
gacagggacg ggactgaata tagcgacgag tttgtggaaa gattgagaac ggaaatcaat   180
cagctatcac acgtgacact gaccgaaaaa gaactggaat atatgataaa gaactgccgc   240
ttcctgccca gggtctattg ggagtggctc tcttctttcc gtttccaacc cgagaaaata   300
gaaatccgtc tggacgaaaa tcggcagctt cacatcgaag tgaacgacta tctttacaaa   360
gcaacgcttt atgaagtacc tctactcgcc atcgtttcgg agataaagaa ccaatcgtcc   420
ggcaatgttg ccaacctgga agacatcctg tacaaactgt ccgaaaagac agaactgtcc   480
aataagcatc agctactttt ctctgaattc ggaacccgaa ggcgcttttc gttcgatgtg   540
cagaatcaag tcatcgggca cctgaaacag acagcccatt actgtatcgg cacttccaat   600
tgccatttcg ccatgaaata cggcatgaag cccatgggta cgcatcccca tgaatggttc   660
atgtttcacg gagcgcaatt cggctataaa catgccaact atatggccct tgaaaattgg   720
gtaaatgtat acgatggcga ccttggcatc gccttgtccg acacttatac atctgccatc   780
tttctaagca atctaagccg caaacaggct aagttgtttg atggcgtgag gtgtgattcc   840
ggtgatgaat tccggttcat cgatcagctg accgcacgtt ataaggagtt gggcatcgac   900
ccgaccacca agacaatcgt attcagcaac gcactcgact tcggcaaagc actggatatc   960
cagaagtatt gccggggaaa gatccgttgc tctttcggca tcgggacaaa cctgaccaac  1020
gatacgggat tcaagccatc aaacattgtc atgaagctat cgcaatgcaa gatgaacatg  1080
aaccaggagt ggcgcgaatg tgtgaaatta tcagacgaca tagggaaaca tatcggcagc  1140
ccggaagagg tgcgtgcctg tctatacgac ttgcggttgg agtaa              1185

<210> 3485
<211> 687
<212> DNA
<213> B.fragilis

<400> 3485
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attgtaatga cagacccaca aaacgatttt ctgagtgaga acggttttagg ttgggggagct   120
tttggagaga atatacagaa gaacggtacg gtagagaacc tccgccgcat cttttgaggta   180
gcggcagcga aaggtatgct ggtattcatc tctccacatt attattacaa acacgatcac   240
caatggcttt ttgaggggcc tatcgagaaa ctgatgcatg acacgggtat gtttgagcgc   300
cggggacaac tgaccggtga gggatttgaa ggttcgggtg ccgactggct ggatctctac   360
aagccttata tcaacgaagg cacgaatatc atcgttacag ctccgcacaa actttacggt   420
ccggaaaaca atgatctgat tctgcaactc cgtaagcgcg gggtcaataa agtagtggtg   480
tgcggcatgt ccggcaatct ctgtgcagaa tcccatttgc gcgagttgca ggaacgggga   540
tttgaggcag cggtggtgtt tgatgctacg gcttctgcca agcttccggg gatggatgcc   600
gatacggcag cgtttatcaa cttcacgttg ttggcggaaa aggtgtatac aacggatgaa   660
tttgtaaacg agatgcggca gcgataa                                  687

<210> 3486
<211> 549
<212> DNA
<213> B.fragilis

<400> 3486
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acccctgctg tttttatacg tttctcgggc tgtaatctga aatgtgactt ctgtgatacc   120
cgacacgaag agggtgaaat gatgacagac gaagatattg tcaatgaaat cgggaagtat   180
ccggctgtca tggtgattct taccggagga gagccttctt tgtggattga cgatgctttt   240
atagaccttt tgcaccgtgc aggcaagtat gtatgtatcg aaaccaatgg tacgaaaccc   300
ttgcccgctg ctattgattg ggtgacctgc tctcccaagc agggtgtcaa tttagcttta   360
```

```
aaccggatgg atgaagttaa agttgtttac ggaggacaaa atattgacgt ttatgaacaa    420
cttcccgccg aacatttttt ccttcagcct tgttcttgta ataacaccgc agaaacggtg    480
gattgcgtga tgcgacatcc taaatggaga cttagcctgc aaacgcacaa actgataaat    540
attctatga                                                           549
```

<210> 3487
<211> 1101
<212> DNA
<213> B.fragilis

<400> 3487
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aagagactga aaattatgaa gaagaagttt actatatttg tcatgctatt ggccggtatc     60
atttacactg gccatgcaca aggcgtacaa tggatttatc aacaaaaaca ggagaaaaaa    120
aacatgaaga atctgagtga aatatatttt gcaggcggtt gtttctgggg aacagaccat    180
ttcctgaaac agatcagagg agtaaaatcg actcaggtcg gatatgccaa cggaaacatt    240
gctaatccga cttaccaaca ggtgtgtaca ggaaaaacta attttgcaga aaccgttaag    300
gtggagtata atccacaaga agttcccta aaactattga tcgacctttt ttttaagaca    360
atagatccta caagtctgaa tcgacaaggc aatgacaaag gttcgcaata tcgcatcggt    420
atttattata ctgatgaagt tgacttgccg actatccgga cagccatcga cgaattggct    480
aaagagtatt ccaaacctat agtcatagaa gtgaaaccct tatccaattt ctacaaagcc    540
gaggaatatc atcaggatta tctggataag aatcccggag gatactgcca tattaacct    600
gcactattcg agttggcaaa aaaagcaaat gcacaggctg agcagcccca gacaaattac    660
aaaaaaccgg atgacgccac acttcgtagt aaattgacgc ccgagcaata tgcggtcaca    720
caaaagaacg caaccgaacc agcttttcat aacgaatact gggatgaaaa acgagatggc    780
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ggctgtggct ggcccagttt caccaaaccg atagaaaaag aagtgataaa agagaagatg    900
gatacatcac acggaatgat acgcacagaa gtacggagta aaacgggaga tgcacattta    960
ggacatgtct tcacggatgg ccctaaagaa aaaggaggat tacgttattg catcaacagt   1020
gcatccttac gcttcattcc aaaagagaaa atgaagaag aaggatatgg agagtacttg   1080
aaacttctgc ctcaaaaata a                                             1101
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<210> 3488
<211> 747
<212> DNA
<213> B.fragilis

<400> 3488
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tatattatga aagtaggttt atttatcccc tgttatatca atgccattta tccgcaggta     60
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cagacctgtt gcggacagcc catggcgaac gccggttttc aagatgaatc tttaaaaatg    180
gctattcgtt tcgatgattt attccggaag tacgattaca ttgtcggtcc ctctgccagt    240
tgtgtggctt ttgtgaaaga gaatcatccc ggcattctgg ccaaagaagg ccatcagtgc    300
cagagcgcag gtaagatata tgacctttgc gctttcattc acgatgtgat aaaacctacg    360
aaaattcctg cccgctttcc ccataaagtc agcatccata acagttgtca cggtgtacgt    420
gaacttttcc tgtcagctcc gagcgaactg aatatacctt attttaataa attgcgtgat    480
ttacttcaga tggtcgaagg aattgaagtt tttgagccct cccatgtgga cgaatgttgt    540
ggtttcggag gtatgtttgc ggtcgaggag caggctgttt cagtctgtat gggacgcgat    600
aagatacggc atcacatgga gaccggtgcc gaatacatca ccggagcgga tagctcctgc    660
ctgatgcata tgcagggtat catcgaacgt gagcacctgc ctatccgaat gattcatgtt    720
gtagaaatat tagcatcaca attatga                                       747
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<210> 3489
<211> 1218
<212> DNA
<213> B.fragilis

<400> 3489
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ggtaagaatg atgtggatat gagaacttat ttgaaaaaag ttctcggtaa tcttggtaag    120
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```
atagaatcag cttcctatca tgagcaatct cagtcctggc aacccggcga taccgttgcc      180
attaccaatt ttcatcgttt tattaaagaa tacaccaatc cttctgattc aaccatcggc      240
gcgagctatg tgtgtcttga cgccaaggat acgacgcgat ttgaatttgg ttatgatgga      300
aacgtgagga tgataagtta tcatgagcat aaagggatta tgatcgatga tttcacgacc      360
agatcccttc ctttcaggtt ggtggctcct ccgttttttt gttatacccg gaatatcatc      420
ggatatgctt tgagtacggg agatagcatc accaccgaat ggaaggattt aggagaagcg      480
tattacttca agttggtgat acatgaagac aggcaggttg aatttttttgg aaaagcgtac     540
tacataccga agcctccttt tgatttggga gacccgacct cgatttacga attgtggatt      600
agcaaagcgg acggtctgcc ttataaaatg cgcagggaaa tgtcgcatca gatttctgct      660
actacttgtt cggatgtagt cttgaatcaa ttgtcgatag ccggtttaaa cttatatgat      720
tatgtgcccc aagactatga gatccgcaag tatggcgagc aaaaaaaggt cactcagcct      780
gcggcgacag atcttatagg acagaaagct cccgactgga tgttgaaaga tatgtatgag      840
aaaccggtgg cgttatccga atttaaaagt aaagtgctat tggtgaacct caccggtatc      900
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gccggtgaat ttgaagtggt ttctatagaa acctggggac gtgaacccca ttcgctgcga     1020
acttatgcgg ataagaatca aataaattat agttttttgt gcggtgatga aggtattgtc     1080
aagtcatacc ggacttatgg cgcggcacct ttattcttta tattagatca ggatcgggtg     1140
atcagaaagg tcatccgggg gtatcgaatg gggcggaccg atgaagaaat cacagatgcc     1200
attaaagcac tgttatga                                                   1218
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<210> 3490
<211> 1434
<212> DNA
<213> B.fragilis

<400> 3490
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acagacaccc ccgggttgac ttccgccgat ccggaaatcc aacgaagtga tactgccgcc      180
aacttcggca acctcagctg gcgggaggtt ttcaccgacc cgtatctgcg cgtactgatc      240
gactctgccc tcgtgcgcaa caccgatctg cgcactgccc acttacgggt gaaagaggct      300
gaagctacct tgctttccgc acgcctctcc tatctgccgg cttttttcact ttctccgcaa     360
ggtacggcaa gcagcttcga tggcggaaaa gctactcaga cctattcact gcccgtcagt      420
gccagttggg agatcgatat ctttggccga ctgaccaatg ccaaacgtcg tgcccaagct      480
gtcgtggccc aaagccgaga ttatgaacag gcggtgcaga cccaactgat tgccgccgtg      540
gccaacaact attttacctt gttgatgctc gacgcccaga tcgaaatctc caccgctacg      600
gaagctgcct ggaaagagag cgtcgccacc acccgtgcca tgaaagcagc gggaatggtg      660
accgaagctg ccttgtcgca aaccgaagct acctattata atatatgtac aactctgctc     720
gatctgcaag agcagctcaa ccaagccgag aacgcccttt ctttgctgct ggcggatgtc      780
ccccaccgta tcccccgcgg acgtctggcc gaccaacagc tcccggagaa tctatcggta     840
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caactccgca tagccaaggc gcagcaggaa gaggcacgcc tcagctttga gcagacctta     1140
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tcggcctatt tcaaccgtca ggtggcctct ctggagaatg ctgcacgcag cacgcaacta     1260
ctgatgaagc atggtaacac gacttacctg gaagtgctca ccgcacagca gacactgctt     1320
aatgcgcaac tctcccaagt ggccaaccgc tttaccgaaa tccagggagt catcaccttg     1380
tatcaggcat tgggagggggg cagggaaact gcctccggag aaagaaattc ttaa           1434
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<210> 3491
<211> 963
<212> DNA
<213> B.fragilis

<400> 3491
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gtcatctcgc ttatcatcgg actacttgtt acggcaagcc ttattctctt tctcgtaaag      120
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aagatatttc cgaaaacaaa tatcagcgaa ctcgctgcac gcacacgctc atggtggatc    180
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gcatttctct ctttatcgc cttcagagaa ctttattcgg tactgggatt cagagaagcg    300
gatcgcggag cattgttctg gggcatacta gccattccca ttcaatatta ccttgcctac    360
ctggcctggt atggagcctt tatcatattc attccggtag tcatgttcct tgtattgcct    420
ttacgactgg ttttaaaggg agacacgcat ggaattacca agtcgatggc cctgttgcaa    480
tggattctga tgctttcggt attcggtatc agtcaccttg cttatctcct gtcgcttccc    540
gaactaccgg gattcagttc aggaggacga ggtctgctgt tgttccttgt attccttacc    600
gaaataaatg atgtcatgca gttcatttgg ggtaaactct tgggacggca taagatactt    660
ccgaaaataa gtccgaacaa aacatgggaa ggttttctgg gtggtgtaat cagtaccact    720
gtgattggtt actttctcgg tttcctgact cccctctccg ctcctaatgt catcctggta    780
agtgccctta tcgcaattgc cggattctcg ggagatgtag tcatctccgc gatcaagaga    840
gacaaaggaa tcaaagatat gggaaacagt attcccggtc atggaggggt gttcgaccgg    900
atcgactctc tggcctacac tgcccccgta tttttcatt tagtttatta tattgcttat    960
taa                                                                  963
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<210> 3492
<211> 1332
<212> DNA
<213> B.fragilis

<400> 3492
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attatcgcca gtgccttgaa actggatgtg gagaaaccg gtttcttggt ttcgatgtct    180
ctctttgctt cggggggtatc tactttatc cagtgtcgcc gttttggacc tataggggca    240
aagttgcttt gtattcaggg aacaagtttt tcgtttatcg gtcctatcat tgctacggga    300
cttgtcggtg gacttcctct tattttggt gtctgtatgg cggctgctcc cattgaaatg    360
atcatcagcc gcactttcaa atatatgcgt aatattatta ctccgttggt ttcgggtatc    420
gtggtgttgc ttatcgggtt aagtttgata aaagtaggta ttatctcttg tggaggtggt    480
tatactgcga tggataatgg tacgtttgct tcttgggaga atctttcgat tgcaggtgcg    540
gttttgctca gcgtgctgtt ttttaaccgt tgcaagaata agtatttgcg catgagttcc    600
attgtgttgg gactctgttt gggatacggc cttgcttttg ttttgggaaa agtagatatg    660
agtgctttga atgtagagat gctgatgagt ttcaatattc cccagccttt taaatacgga    720
ctcgatttta atgtgtcttc ttttattgcc atcgggctcg tatatatgat tacagctatc    780
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ttgatgcccg atgtgttaag ccaggctccg gaagctattc gtagtatctt ttcgtctggc   1260
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aacgaggaat aa                                                        1332
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<210> 3493
<211> 759
<212> DNA
<213> B.fragilis

<400> 3493
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ccgtcgtatg gcgagatagc aatggcacgt gaggtactga cgaccacccg gctgcatgtc    180
atcatacgtc cgcgcggcgg cgattttctt tgttctcctg tcgaggtaaa gaccatgctg    240
aaggatatag aaatggctcg tcaacttgga gccgacgggg tggtgtttgg ctgcctgact    300
acaaatggcg ggatagacgt accggtgatg aaacaattga tggaggcctc gaaaggctta    360
tctgtcactt tccatcgggc atttgatgtc tgccgtgatg cgtctgaagc tttggaacag    420
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ataattgatc tgggatgcga ccgtatcctg acttcggggc aacaggcaac ggcggaactt    480
ggaatacctt tgttgaagga actccgtgaa agggcgaacg gcagaattac tctccttgca    540
ggttgtgggg tgaacgaaaa gaatatctgc cggattgcaa aagagaccgg tattcaggaa    600
ttccatttct cggctcgtga aagcattaag agcggaatgg agtataagaa tgaggcggta    660
tccatgggag gaactgtcca catcagtgag tatgagcgga acgtgacgac agtgaaacgc    720
gtgaaagata cgattgagag tattacttct tctctttaa                          759
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<210> 3494
<211> 876
<212> DNA
<213> B.fragilis

<400> 3494
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acgaggcgga acgcctgtat ccgtcatgca atgacttcaa cgagtttttg cagaaaatca     60
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gatttacgaa ccgataacaa aacaataatg aaacaggaaa atgacatacc ggacaagatc    180
ctggaacgta tccggaaact gatacgcctg aaggaatcga ccacctcgga aggcgaggcc    240
aaagctgccg ccacccatgt gaaccggctt ctgaaggaat ataacctttc cctgcttgac    300
gtgaacgaaa agcggccgga gacggtgttt gaaatcaggg aatccggagc gatcagttat    360
aaggacagct cggcaacta ctggaagcgt gacctgctgc gcgtattgtg cgaatacaat    420
tactgccgga tgctccgtta ccggggaacc accgacatgc tgattgtggg tacgcaggag    480
aatattgcag ccgtaaccgt gctgtatgat tatctacgca ccactttccg ccggctggca    540
gataaaaggc acatggaata tgtatcgatc aaacggggat attaccgtac cgagaagtac    600
aggaagaagt atatacgttc gtacctcgaa ggcgtgacac cgggactaag agaccagttt    660
gaagcgatgc gaagcacttc ggcggaagaa gtgcgtgaaa ccgctctggt acattgccat    720
aacgctctta tcgagagata cctggaaaca atcgggacgt gcagtgccaa agtacagccc    780
agaaagacaa agacggacta ttcggcttac cactccggaa tggatgacgg acggagtatc    840
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<210> 3495
<211> 603
<212> DNA
<213> B.fragilis

<400> 3495
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aaaaatacga agaaccgcta cgaatatccc gattggcaga tcaatgcaac tgtttatccg    120
gacgtggttg ccaaattctg tgaaatgagt tttgccgtcg gtggtgaggc tattgtgctc    180
ggtgagggag aagatatcaa tgctgtcatt cgccgtactt accctgatgc cggcagcatt    240
gcttccgatt tggaggaaat cacgtgtgct acgttcaatc ctgatttgtt aggtcgtgcg    300
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gcggctgtct ggattcctca gacagtgaaa tacaaggcac tctattttat tgccgagaag    420
ctggtgattg ttctggacaa aaatcgtatt gtgagcaata tgcatcaggc ttacgaacgg    480
ataaaagatg aaaaatataa attcggtaca tttatctcgg gaccctcaaa gactgccgac    540
attgaacagg cattggtgat gggagctcat ggagcgagag atgtattggt aatattaaag    600
taa                                                                603
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<210> 3496
<211> 498
<212> DNA
<213> B.fragilis

<400> 3496
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actaaatata tgaatacccia acgtcaaacc ggtacctgcc gctctctttc ggggcatgca    120
cagcggcatg ggcgcgaagt ccgtccctct tatgagatca gcacttcgca attttctgat    180
atgaaagtca ggagactgac tcgtaattac ggattcggtg gatacagcat ctaccgttat    240
ctggtgagtg aggccctcta caaggggggag tatttccttc cttggtgtga ggagaccgcg    300
cgtgcggttg cctcttactg gaatgcctct ttggaagaca ttacccggat cgtggacggt    360
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```
tgcgtacagg tcggcctgtt caatgacgaa ctgtacagga agcacagagt attgacttct    420
gccgccatcc agcaggacta cctcaagtta tgcggcatgg cctacatcca ggaggagttc    480
gctctttcgg ccagttga                                                  498


<210> 3497
<211> 1518
<212> DNA
<213> B.fragilis

<400> 3497
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tcgctgagtc attttgccgt ttcggcttcg gcgcagccat ccgttgtgga ggtgccttct    120
gtttcggtgc aaccctctgt cgacagcttg tcccactatc tggaacaggc ggcacgcagt    180
aatccgcaag tcaatgccga cttcatgctc tataaagcct ctttggagaa gatccctcag    240
gccggtgctt ttgccgatcc cgaattggaa atcggttttt tcgttaaacc tatggagacg    300
ctgatgggaa agcagatagc cgactttacg ttgatgcaga tgtttccttg gttcggcact    360
cgcaaggccg cccgcagtga agcttctgag atggcacgta tggcttacga acaatttcgt    420
gatacacgta ataatctctg gtatgaggtt aaggcccagt ggtatcagct tagtagcctc    480
aacgagcaat atcacattac ggaagctaat atccgtcttc tttatcaact cgagcagttg    540
gcactgaacc gcttttccgc ttcgtcggca caggcagctc cctcgtcgac ttctgtaacg    600
tcagttgctt cgatgccgcc tgcactttct tcggggagtg gcatgtccgg tatgggagga    660
atgggcagcc cggcgcctgc gggtactcca ggtgtttctg ccggcagctc ttccggtaga    720
gacatgtccg gcatgggagg cggatcaatg ggaaacgttg ttgttggtgg tatgtccgat    780
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gacagcatct tcacccgtaa tcccatgctt gccatgctcg aggcagaggg agaagcctat   1020
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tactctgtgg tcaataaagt ggccgatccg atgggaatgc ccgatatgaa cggcaaggac   1140
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cagcgggaga gccataacta ccggatggca agcgaactga acgtgacaa tgtacagaac   1260
cagttgcagg ctgaatacat taacgttcgc cagcagctcg acgatgccgc cgtaaggtg   1320
tcactttacg aacggcagta tgccctctct ctttctacct ggcagttgat ggtgcgtgaa   1380
tttaccgccg ggcgtcaatc gctgaccgat gtgattcagg tggagcgtca gatgctcgat   1440
tataaactga aaaagagtga ggccgtagcc gcttataata ctacggtggc agccatagaa   1500
aagctgatag ccgactga                                                 1518


<210> 3498
<211> 183
<212> DNA
<213> B.fragilis

<400> 3498
cgaccgtcag agagaccctt cccataccgg aaagatcgtg aatggccgcc accttctta     60
ctttatttgc aaacatacac ttatatcaat caaaaccaat attcatccaa gcaacccgca    120
gtcgcatctc ctctgacact gcttcgttac tttaatatta ccaatacatc tctcgctcca    180
tga                                                                 183


<210> 3499
<211> 237
<212> DNA
<213> B.fragilis

<400> 3499
agaataacag aatcagaatc cgacagtctt cgattcgtct atcggattca cataaaaaca     60
atcagatatg ataaacaaga aacatatatc tttactcacc ttggtgatat tcctttcgct    120
gagtcatttt gccgtttcgg cttcggcgca gccatccgtt gtggaggtgc cttctgtttc    180
ggtgcaaccc tctgtcgaca gcttgtccca ctatctggaa caggcggcac gcagtaa       237
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<210> 3500
<211> 387
<212> DNA
<213> B.fragilis

<400> 3500
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gtagttgaga ttattattgg tatatatgtt cgtgatagct ttgtacgtcc ttatatgggt   120
gacgcactgg ttgttgtgtt gatttattgt tttatacgga ttttattcc gaacggtttg   180
tcacaattac ctttgtatgt gcttgctttt gcctgtttca tagagatact tcaatatttt   240
cagttggtgg atgtgttggg aatatcgaat cgtatactcc gtatagccct tggttctact   300
ttcgatttga aagatatggt cagttatgcc ggcggatatg tatttattct actggcagaa   360
tattttttag ataagaaaag aaaataa   387

<210> 3501
<211> 243
<212> DNA
<213> B.fragilis

<400> 3501
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aataaactta tcggattcta tattcaaaat aagattgcga atgtaccgtt ttttacagaa   120
gctccgattc aatatccaag ggtagccgga tgtaattgtg cgatagtgaa ctgcctttgt   180
gcgtgtccgc acaatagcaa aagagtgttc aggaatatat tgtattatat aatagccatt   240
tag   243

<210> 3502
<211> 1122
<212> DNA
<213> B.fragilis

<400> 3502
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ttcatgatgg acaaaacgaa aaaagtcaga tatgtattct ctgttttcat ggtgatgctg   180
atggtgggca tagccgaatg gacaggcgag aaagagatta tctttccgga gatggcggcg   240
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ccgttgctct gcaatttatg tctggcattt gcctttgccg cctgttgcct gctgttcagc   420
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aagtactttg ctcccgccgg agcattggcg ttgatccctc tgatagtccc gcaagagggt   960
gtgcattggc tgcctctgca agctgctgcg ggcgctgccc tgttcatcgc tatcggtatg   1020
cttgtgttcc agcaatgcta caagtggagt aaagcccagt tgatcttctg ctttactccc   1080
acattgttgc gcagatatct gaaccgcagg aggaaggagt ga   1122

<210> 3503
<211> 417
<212> DNA
<213> B.fragilis

<400> 3503
gagtcggggg aggtaaagga agtcccccgg ataactattt tcactataaa tgactatttt   60

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ccgccgaaaa gtttttgtaa tatcagagtt aatcgtattt ttgtgtacaa ttttggtgta    120
gtgatgacag aagaagaaaa gaagctatta agtacctttg aagcaaggct gcggcattta    180
atctatctgc acgatgaatt aaagcgcgaa aatgctgagt taaagcaact tctcgaagaa    240
gagaagtccg aactcgaaaa ggcgagagct gaatacaaag cgttagaatc aagctacaca    300
gacctaaaaa cagctacgac aatcagcctt aacggcagcg acgtaaaaga gacgaagctg    360
cgattgtcca aattagtgcg tgaagtcgat aaatgcatcg ctttgttgaa tgaataa       417
```

<210> 3504
<211> 1173
<212> DNA
<213> B.fragilis

<400> 3504
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gagaaagaag cgatgcgtga tccttttttg gccgatgcgt tggaagggta tagccgggtg    120
gagagtggag ccgatgagca aatagagttg ttgcgtcgcc gggtgaatat gcgcgtaacg    180
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gaagaagtat ctcacttgga acctttgtct gtacaaaagg aagaaaagaa agaggatttg    360
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gagaaaaaag ttgttgtatc tccccacaca gaggtgcctc aggccatgac acaggaatgg    480
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aaaatgtccg gtactcccca acctaccata ggtagaaagg catttcggaa gtatctgaaa    960
gagagtctgg ttcatccgtc tgataaagac tgtgcgcgtg ccaagggaaa agttattctt   1020
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gcttcggctg atgaggaagc cattcgcttg atcgaggaag acctgactg gacaatgggt    1140
gaggaaccgg tagaaatcag tatccgtttt tga                                1173
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<210> 3505
<211> 936
<212> DNA
<213> B.fragilis

<400> 3505
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cgtcgttgga gagcgggaga tgataatcgt tctgatatac ctttgcggac tttccataac    180
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acctattata tagcagacgc cgaaggaatg ttgggtgata agttgaagat gtggttactg    300
aatagttttt cgttgaacaa tgtattgcag gaaaatgtgg atatgaagaa ccggattgta    360
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ggacgcgtgc ttgctatgga atatcaggcg tacaactggg aacactccaa agatgtgtta    480
cttgagcctt atttcgtgaa attattccgc catcgctggt atttgatagg aataaaccgg    540
gaatataaag cttttcgttc ttattctctc gatcggatca agagaatcgc tctttcggaa    600
gagacattca atttcccacg taagtttact cctcaggatc atttcagaga tagttttggt    660
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gctccatacc tgagaaatct tcctttacat tccagtcaaa aggagattgc cgttacagag    780
agttatgttg attttgaact ttatatttcg catacttatg attttattca ggagttatta    840
tccaaaggag cggcagtgga ggtgttgaag ccccagtcgc tgcgggataa gataaaagcc    900
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<210> 3506
<211> 1659

<212> DNA
<213> B.fragilis

<400> 3506
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<210> 3507
<211> 1185
<212> DNA
<213> B.fragilis

<400> 3507
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<210> 3508
<211> 1536
<212> DNA
<213> B.fragilis

<400> 3508
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gtaccctcca atgtctcttt gcgcaccccg ctggtgaaac atgcggcagg cacacaagca     180
gcaatcgaat tgaacatccc tttcgtttcg gcaatcatgc aatcggtttc cggtcccgaa     240
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gccagtcagg cggaaatggt gcggaaagtg aagaaattta aagccggttt tgtgaccagt     360
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cagattatct gggatcataa actcaataca cttcctatta tcgacaaaga aggacgtctg     660
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<210> 3509
<211> 333
<212> DNA
<213> B.fragilis

<400> 3509
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gggggagtta ttctttgccg tgctcagagc cgtgcagaag tagaaaagat aatcggtgag     240
gaccctttta atgctgtggc agactatcgg gtgatagagt ttgaaccgaa taagtcggta     300
gaaggattca aggaactttt aaaaataggt tga                                 333
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<210> 3510
<211> 1308
<212> DNA
<213> B.fragilis

<400> 3510
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acggtgcgtg ccaacaagcc cggtacatta ggtaatacgg tgggtggatg gggtatttgc     180
catagttttg cggaagacgg acgttgcatt tcgttactga aagtgatgct taccaattat     240
tgcatatacg attgtgccta ttgtattaac cggagaagta atgacttgcc cagggctacg     300
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cggactgtaa  atgaaatgac  tccacagacc  gtacgtagct  tgttactgcc  caaatctgct  1260
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<210> 3511
<211> 249
<212> DNA
<213> B.fragilis

<400> 3511
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attaacaggc  ggttcaaaca  gatgccttat  cagtttgcta  taaaagaagt  tgccggcatc  180
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atctattaa                                                              249
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<210> 3512
<211> 741
<212> DNA
<213> B.fragilis

<400> 3512
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gatttcggac  gttctttgta  tgataaagat  ttaaaggacc  gtcctgtatt  aacctctacc  180
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aacgcttatt  tggggggagt  tacctatact  tataataata  ctgctttctc  gcgtggcttt  420
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<210> 3513
<211> 2112
<212> DNA
<213> B.fragilis

<400> 3513
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gactttaaaa  accacctgca  agagttcctc  actccttaca  tatccggagg  gaacaaagcg  180
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gaagatccgg aagattatgc cagcatttgg agctatacgg aaggagaaac agaacctcgc   2040
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<210> 3514
<211> 405
<212> DNA
<213> B.fragilis

<400> 3514
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<210> 3515
<211> 1215
<212> DNA
<213> B.fragilis

<400> 3515
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<210> 3516
<211> 2334
<212> DNA
<213> B.fragilis

<400> 3516

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atctgccggc gttatgtacc cgagacattg cctcttaaca ttcgtaatac gggtgattcc   1920
aaacagtccg tcatgggaac tgtagcactc ttgcagacag catccctgtt gttggcgata   1980
gtcagtatcc tcctgttgat attaagtatt tattccggaa tctccatgga tgtgataaat   2040
cggcaaaaag aagtggccat ccgaaaaata aacggagcca ccccgagagt gattgccctg   2100
ttattcggca aaatctattt gattattat ctttctgtct tcgtcattat ctatccgctg   2160
gtacgattgg tgttgataag catcacacaa aaaagcaatc tgcaaagcat atatagttgg   2220
```

```
agctgggggag tcctgttgtt cttcacgatg gctcttttga tcttttggt tacggcatac    2280
aagatttata aagtaatgca cctgaatccg gcaagcgtct tgaaaaagga ataa           2334
```

<210> 3517
<211> 951
<212> DNA
<213> B.fragilis

<400> 3517
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cagcctggca gacaggaggg accggatcgt ccacattaca ataaacgttc tcataacacg      60
caggttgtgc aggagatggc gacagctata tccgcgcaat ctgtcacatc aagaaagaaa     120
ggggcgatga aacggactat cctcatctta ttgggctgga tgctgctctc gcaaggatgc     180
agctatggtg tgggcgacga ctgcctccca cctgaagaac ctgtacccat acggatggcg     240
attgcagaag gaaagctctc cacgcgggca cctgtcacaa cgatcgatgc aagcaatctg     300
tcgaatgtcg gcatttacgc agtcagcgaa gggagcatag ccgggcaata tccctggaca     360
tccactcctt tcgccctgaa tctggtaccg agcggcatca gcggcagcca gctctcttc      420
aaccccaaac tctattatcc attgggaggg aaacgggtca ttttctacag ttattatccg     480
cgcacgacag ccacaagcgg cagcaattac atcacggctc cgggcaacgg tgtcgctcct     540
gcctatcatt tcacgctgac gggagcagaa gacatcatgt atgccgcagg cactcccaca     600
ggaagtacca gcaccatgcc cgtcagcctg acattcaacc atgtgttgac ccaactccag     660
ctgaacactt ccctattggg cgcactgtcc agcatcaagc tgctgggtgt gtacaataaa     720
ggtacgctcg acattggcaa cggaaatgtc acctacgaca gttccacgac ggatatcaca     780
ttgaccgttc cccttctagg ttcggttacc aataccgtaa tggttcctgc cggagtagca     840
agttataagg tagaagtcgt tctgctgctt cgctgttga aaaggacata tctggtgaaa      900
cccacttcgg gtaatttcca acctggggta atttatacga tcagtctctg a              951
```

<210> 3518
<211> 513
<212> DNA
<213> B.fragilis

<400> 3518
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gaatataaaa gtatggaaat acatatagga aatcgcgtgg ccgaaataga attggtcagc      60
aaggaagaca acaaagtggt tctcaccatc gacggaaaaa cgttcgaagc ggacgttgtc     120
atggcagaga acgggaattg caacatcctg atggacggac gcagctccaa cgcccaactg     180
attcgcaaag agaacggaaa gagctacaaa gtgaatacac actacagcag cttcaatgtc     240
gagattatag acagccaggc gaaatacctg cgcatgcgca agaaaggtga gaggagcag      300
aacgaccgta tcacttcgcc catgccgggc aaggtggtga aaatccccgt cagtgtggga     360
caagagatga aggccggaga aacggtcatc gtcatcgaag ccatgaagat gcagagcaac     420
tacaaggtga cttcggactg ccggattaaa gagatttttgg tgcaggaggg cgataacatt     480
gccggagagc agacgctgat aacgttagaa taa                                    513
```

<210> 3519
<211> 1350
<212> DNA
<213> B.fragilis

<400> 3519
```
aaagaaaaaa gaattatgaa tgcagctaag gtattagaag atttgaagag aaggttcccc      60
aacgaaccgg agtatcatca ggcagtagaa gaagttcttt ctaccattga agaagaatac     120
aacaaacatc ctgaattcga caaggccaat ctgattgaac gtctttgcat tccagacaga     180
gtataccagt tccgtgtaac ttgggtagac gataaaggca acgtgcagac caacatgggt     240
taccgtgttc agcacaacaa cgccatcggc ccgtacaaag gaggtatccg cttccatgct     300
tctgtaaacc ttggtattct gaaattcctt gctttcgaac aaacatttaa aaactcgctg     360
accacattgc ctatgggtgg cggtaaaggt ggatcggact tctctccacg cggaaagtca     420
aatgccgaag taatgcgttt cactcaagcc ttcatgctcg aactgtggcg ccacatcggt     480
cctgaaaccg acgtaccggc cggtgacatc ggtgtaggtg ccgcgaagt aggcttcatg     540
ttcggtatgt acaagaagtt atctcacgaa tttaccggaa cattcaccgg taagggacgc     600
gaattcggcg gttcactgat ccgtccggaa gctacaggtt acggtaacat ctacttcctg     660
```

```
atggaaatgc tgaagaccaa aggaaccgac ctgaaaggta aagtatgcct gatctccggt    720
tcgggtaacg tggctcagta cactgccgaa aaagtattgg aactcggtgg taaagtagtt    780
accatgtccg actccgatgg ttacatctac gatccggacg gaatcgaccg cgccaaactg    840
gattacatca tggagttgaa gaacctctat cgtggacgta tccgcgaata tgccgaaact    900
tatggttgta aatatgttga aggagcccgc ccctggggtg aaaagggtga tatcgcactg    960
ccttcagcca ctcagaacga acttaacgga gacgatgcac gcaagttggt tgccaacggg   1020
gtgatagccg tatcggaagg tgctaacatg ccttctacac ctgaagccat caaagtgttc   1080
caggatgcta agatcttgta cgctccgggt aaagcagcca atgcaggcgg tgtatctgtg   1140
tcaggattgg aaatgactca aaactctatc aaactgagct ggagttcgga agaggtggac   1200
gaaaaactga gagcatcat gaagaacatt cacgaagctt gcgtacagta cggtaccgaa   1260
ccggacgggt acgtaaacta tgtgaagggt gctaacgttg ccggattcat gaaagtagcc   1320
aaagcaatga tggcacaagg aatcgtataa                                   1350
```

<210> 3520
<211> 885
<212> DNA
<213> B.fragilis

<400> 3520

```
aacaacagaa gtatgaaaaa gttaatgttt gctgtaatag cttgcgcgat gggcctttcg     60
ggctgctctt cggaggatga ctgtgctacc aatcccgaac ctgcgggaga tgtgacggaa    120
atcaaattaa gtgccggtat ccagggagtg gcaacccgca gcccggtatc gaccaatgac    180
aatataacgg ctccgtttgt ggcctccgcc accaccggag actatacgac gaatgcatgg    240
agttccaccg tgacgtttgt ggcatcgccc acaccgacag ccgcactctc tttcagcccg    300
gcacggtatt atccggtgga taattctccc atctatatca gaggttacta cccggcaggg    360
acactttccg gcaaaacagt tacgctggct ggcgatggga cagaagacgt gatgcttacc    420
gctcaagcct cagggacgaa agcgactgca ggagcactgt cgtttgtctt caaccatctg    480
ctgacgcaat tgcaattcaa acttgtggcc ggtgcaggat atccggcatc gggtgtcaac    540
gtgaccagtc ttgtcatcaa gcaacaaaag acacctgcca cactggacct gaatacatcc    600
agcctgacgt ataccaccaa agaccttacc ctttcgggta cattccccat cctaacggcc    660
ggaagtacaa tcaacaacta tccgatggtg aaaagcggcg aagccctcac ggtggcagtc    720
accacaagtg acggagtgac ttatcccgaa tctaccatct cggtcactac cgaagtcgga    780
aaatcacatt taatcaccct tacctttacg ccgaaggaaa tcacgtcctc tatcagtgtg    840
acagcctggc agacaggagg gaccggatcg tccacattac aataa                   885
```

<210> 3521
<211> 2811
<212> DNA
<213> B.fragilis

<400> 3521

```
cggcagacga gtatcctgca aatgttctcg ctccacagcc cggacgactc gtacgacgaa     60
gccttcctgg ccaattatat cagcatcaac ctcaaacctg agattctccg tatctcgggc    120
gtcggagaca tgatgattat ggaaggagat tatagcttgc gtatctggat gaaaccggac    180
gtaatggcac aataccggct gatcccttcg gacgtatcga ctgtcctggc ggaacagaac    240
attgagtcgg ccaccggatc gttcggtgaa aattccgatg aaacgtatca atataccatg    300
aaatacaaag gacgccgaat cacaccggaa gaattcggtg agatcgtgat ccgttccacc    360
gacgacggac aggtgctgaa actaaaagat atcgccacaa tcgaactggg acaggaaagt    420
tatgcttaca gtggtacgac ggacgggcac aacggtgtct cgtgtatgct cttccagaca    480
gccggctcca atgccacaga ggtgaacaac caaatcaacc gattccttga gaggcaagg    540
aaagaacttc cccaaggagt ggaactgaca caactgatgt cgtccaacga cttcctgtat    600
gcctccatcc acgaagtggt gaagacactg ttggaagcca ttctgttggt tatccttgtc    660
gtgtatgtct ttttgcagga tatccgctca cactgattc cactggtggg gatcattgta    720
tcacttatcg gtacgttcgc tttcatggcg atagccggat tcagtatcaa cctgattacg    780
ttgtttgccc tggtactggt catcggtacg gtagtggacg atgccattgt ggtggtcgaa    840
gccgtgcaag cacggtttga cgtgggatac aaatcatcct atatggcaag tgtcgatgcc    900
atgaaaggaa tcagcaatgc cgtcatcacc tcctcattgg tgttcatggc agtttttatc    960
cccgtatcgt tcatgtccgg cacatcgggt acgttctata ctcaattcgg actgacaatg   1020
gccgttgcgg taggtatctc ggcagtaaac gccctgacac tgagtccggc actttgcgcc   1080
```

```
ctgctactga aaccgtacat caatgaagac ggtacccaga aacagaactt cgccgcccgt  1140
ttccgtaaag cattcaatgc agctttcgat gttgtggtag aaaaatacaa aggcatcgtt  1200
ctcttcttca tcaagcgccg gtggctgaca ggatcactcc tgatagcttc catcgcctta  1260
ctggtagtac tgatgaatac aacaaaaacc agtcttgtac ccgatgaaga ccagggtgtc  1320
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aaacgtatcg aggaacgcat ggaacagatt ccacaagtga agcatgtgca aaaggtggca  1440
ggatacggat tgctggccgg acaaggaagc tccttcggta tgctgatctt gaaactgaaa  1500
ccatgggacg aacgccccgg aaaagaagat gatgtgcagg cagtgatcgg acaagtgtac  1560
ggacggacgg cagacatcaa ggatgccagt gtattcgcca tctcaccggg tatgattccg  1620
ggctacggaa tgggtaacgc acttgaactt cacatgcagg ataagaccgg aggagacgtc  1680
aatgaattct tccagaccac acagcagtat ctgggagccc tcaaccaacg tccggaaatc  1740
gccatggcct actctacatt cgacgtgcgc tatccgcagt ggctggtcga agtcgatccg  1800
tcgaaatgca agcgtgccgg tatcacaccg gaccaggtat tgagtactct ttccggatac  1860
tatggcggac agtatgtgtc caacttcaac cgattctcaa aggtgtacaa ggtgatgatc  1920
cagtccgacc cgcagtaccg gcttgacgaa gcgtcactga acaatacatt cgtacgcatg  1980
tctaacggag agatggctcc cctcagccaa ttcctcacac tgacccgtac gtatggcgcc  2040
gaatcactga gccgtttcaa tatgtacaac tctattgccg taaatgccat gccggccgat  2100
ggttacagta cgggtgacgc catccgtgcc gttcaggaga cagcttccac ttccctgccc  2160
aaaggttatg gatacgatta cggaggcatc acccgcgaag agaatcagca aagcggtacg  2220
acggccatca tcttcggcat ctgtttctg atgatctacc tgatcctgag tgcactctac  2280
gaaagcttcc tgatcccgtt cgccgtcctc ctgagcgtac cctgcggcct gatgggttca  2340
ttcctcttcg cacgcatgtt cgggctggag aataacatct acctgcaaac cggactgatc  2400
atgctcattg gattgcttgc caaaaccgcc atcttgctga cggaatatgc cgccgaacgc  2460
cgtaaggcag gcatgggact gattgcttct gcattgagtg ccgccaaagc ccgcctgcgc  2520
ccgatattaa tgacggcatt gaccatgatc ttcggtctgc tcccgctgat ggtagccagc  2580
ggcgtaggtg caaacggtaa ccgctcgttg ggaacaggtg ctgtaggtgg catggtcatc  2640
ggtacactgg cactgctgtt catcgtaccg tcgctgttca ttgccttcca atggctacag  2700
gaacggatac gtcccgtaca gatagaacca agtcatgact ggcagattca gacagagcag  2760
gaagtgagtg aacacgaaaa agaagaagct aagaatcgcc ctctaaaata a           2811
```

<210> 3522
<211> 309
<212> DNA
<213> B.fragilis

<400> 3522
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cataaaaaag gatgtatgaa cgataaaata aaaataaacc tgcaaatagc ggattcttat   60
tatcctctca ccattaaccg tgatgaggaa gagaccgtaa gagaagcggc aaagcaggta  120
aatatcaggc tcaatgcgta tcgggagcac tacaggaacg tggctccgga aagattata  180
gctatggtgg catatcagtt ttcactggag aagctacagt tgctgcaacg taatgatacc  240
caaccgtata cggccaagat agaagaactt acggaaatgc tggaagagta tttcaggaac  300
gaggaataa                                                         309
```

<210> 3523
<211> 558
<212> DNA
<213> B.fragilis

<400> 3523
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aaacgaacgg gacttatttg taaccggtat gaaaatattc tttcatgccg ggatgatatt   60
cgtcggataa acactacctt tgttggaata caacgtttcc aacctaatat caatccatat  120
aacatgactc cagatttcga ttacagtgaa gtgcctttcg gattcaacta ttgcctcaac  180
aaatcatgta agcaagcctc cacgtgcctg cgctaccggt tgtacactca tattccggca  240
gcttgccaga ccataagaat aatcaacccc gtttacgccg ccaccatcga tgacgtgtgc  300
cctttcttca tgcccgacaa gaaagtgcgg tatgccttag gcatcaccca cttgctggat  360
catgtgcctt acagtgacgc agtcagcatc aaaagacaaa tgctggcaca cttcaagcag  420
gccacttatt atcgttgccg ccgcaaagaa cggatgctcg atccttccga acaggaatat  480
atccgtaaat tatttgtcag taaagggatc aaagaactac cggtatatga tgaatacata  540
gaaaagtacg actggtag                                               558
```

<210> 3524
<211> 291
<212> DNA
<213> B.fragilis

<400> 3524

```
gggatgaagg gtacatactg gtatgccgtg gactatgccg gcacggggca ccttttttacc        60
tacaagcccg aaagggatgc ggggatctgg aacggggagg aagccctgca ggtttcccaa       120
ggggcactcc gggaggtatt ccccaagatc acctggcagg actcacccgt agtggtaaca       180
ctggaggtac tcccctgtga ggagaccttc cgcctgcgcc tgtcaaagaa ctgcggttat       240
atcctgagaa aatatctccg tttcccccgg aaagaaaaaa caaatgattg a               291
```

<210> 3525
<211> 429
<212> DNA
<213> B.fragilis

<400> 3525

```
tatccactta ttaaacgtat tactaacaag aatattatga atttacgaac tttcattgaa        60
cggcctgtcc tatcggctgt tatatccata accattgtcg tggtcgggat tatcggattg       120
tttacgctac ccgtagaaca atatccggac attgccccgc ccaccatcat ggtgagcacc       180
agttacttcg gtgccagcgc agaaactctg caaagagtg ttatcgcgcc actcgaagag       240
gccatcaacg gtgtggaaga catgacctac atgacctcca gcgctaccaa tgccggaaca       300
gtctctatca ccgtctactt taaacagggg actgacccgg acatggcggc ggtgaatgta       360
cagaaccgag tttccaaagc taccggacag ctcccctcgg aggtaaacca agtaggtgtc       420
accacttga                                                            429
```

<210> 3526
<211> 1125
<212> DNA
<213> B.fragilis

<400> 3526

```
ataggaatta tgattgaaaa ggttagtaaa gtaaagcagg ctatattatt cgcctgctgt        60
ttggccgcca ccggatgcaa gcaagcaccg caggcaactg tagaatcggg atacaaagta       120
ataacccttg cgcctaccga ccggacgcta tcgagtacgt actcggcaac aatacgcgga       180
cgccaagaca tcgaaatcta tccgcaagtg agcggtacac tgacacaggt gtgtgtcagc       240
gaaggagaac gggtaaaacg gggacagtcg ttgttcatca tcgaccaagt gccttacgaa       300
gctgccctgc agacagcatt ggcaaacgtg gaagcagcca aagcctcact ggctacagca       360
caactgacgt atgacagcaa acaggaatta tataagcaga atgtggtttc gaccttcgac       420
ctgagtacgg ccaaaaactc tcttttggca gcacaagcgc aattggcaca gatgaaggct       480
caggaggtga acgcccggaa caacttatcg tacacattgg taaaaagtcc ggcggacgga       540
gtggtgggaa cactgcccta tcgggtagga acgttggtga gtgccagtct gcctgaaccg       600
ctgactaccg tttcggacaa ctcggacatg tacgtctact tctcgatgac ggaaaaccaa       660
ctcttaggac tgatccgacg ctacggatcg aaggaagaag cactgaaaca aatgccggaa       720
atcggcctcc aactgaatga ccgatcggac tatccgcaac aaggacgaat cgagacaatc       780
agcggagtga tagaccggaa caccggaaca gtcagcctgc gggcagtatt tcccaaccgg       840
gaaggattgt tgcacagcgg cggcgcgggc aatgtgattg taccgacaga aaaagcgggt       900
gcattggtca ttccgcaagc tgccacattt gaggtacagg ataaagtatt tgcatataag       960
gttgtggacg gaaaagcgca atccgctccg gtacaagtga cacgtgtgaa cggcgggcag      1020
gagtacattg tggagagcgg tttgcagccc ggcgacgtga ttgtggcaga aggtgtagga      1080
ttgcttcgcg aaggaacaga gataaaaaca ataaatggtg aatga                     1125
```

<210> 3527
<211> 186
<212> DNA
<213> B.fragilis

<400> 3527

```
ataaggatta tgaaagaatt agtagaaaag attgctactt tggtagctga gttcaacaaa    60
gatgcaaatg ctcagattga aaatggtaac aaagctgcag gaactcgtgc ccgtaaagct   120
tcattggaaa tcgaaaaagc aatgaaagaa ttccgtaaag tatctttgga agaatcaaag   180
aagtaa                                                               186
```

<210> 3528
<211> 681
<212> DNA
<213> B.fragilis

<400> 3528

```
cgtggagtta tggggcgaag aaatagaata atgcataaaa tgacagaaat ggaaattaca    60
tataacatac agacaattta cacataccgc aacgaaaaca tgcccgagga cagcacgaaa   120
gtgtacaggt tctcccggaa agtaagccgg cgtatctgga aatatgcctt gtcaacccc    180
gacttccgct cttttctgga agccaaaagc cgggagtgct ccgatacaat ctcccgaatg   240
aaccaggagt tacagaacgt agtggtcaca tttcatatct cctttaatgg agatatccct   300
tttgtgggga gtgcagtgtg cttttcaag acagtctcag gaggagagct gcgctgcagg   360
tacaaccagt ccatcctctt tgaggaaaca ctgcccggcg ggaagtatct ccgggacagt   420
tccatagagg gaatgatcca aaaggaaaga ccggagaatt ccgctttcgg gctgcttctg   480
tttgcagttt ccctcgtttc ggttttcggg atattgacgg tacccttcgc gtttaacctg   540
gcacgcttcc ctcttgtgcc ggccggattt acggttatcg cagtcttgat cttactgacg   600
gtctgtctga gacatatgaa ccgtagacgc atcacgcgga gaatggagat acaggataaa   660
agacaggaac ccattaaata a                                             681
```

<210> 3529
<211> 1236
<212> DNA
<213> B.fragilis

<400> 3529

```
ttttgttata ttaaattaaa acttatgaca tcagtaaaat taaaattgaa caagacccgt    60
gcattgaaag atgggaatta tccggtggta ttccagctaa tccaccaaaa gcgcaaaaaa   120
ataatttata cgaaataccg tatgaaagaa gaggactta taattattgc cggaaatgtt   180
gtttcgggtt gccataccgg ttgcaaaatc agtcgcgaat tgttgaggat ctataagcaa   240
ctgaccgcac gagttcgcag actggaaagc cgtggtgagg aatatacaat aaatgatatc   300
actactgtca tgtttttcaaa agtgaccggg aaattcttat tactgcctta cattgataca   360
caaatagaat ggaaaaaatc aataatgaaa aacggaaccg ccgctgctta tcaaagtacc   420
tatgcttcac ttgccaaata tatcggtaag aaagaggtga aaatatcgca agtgaaccac   480
cgctttgtaa cttgctacag agacttttta tccaaaaatg gggctacgga aaatacgatc   540
ggatactatt taaggaactt cagggcattg tataatctcg cggtaaagga cggcttggtt   600
cctccatgcg attatccgtt caaggaaata tgtaccaagc cctgtaaaac agtaaaacgt   660
gcattagatc gggaacagat ggttaaattg gcttgtctgt cattgcattc cgatgcagag   720
ttaaaacgtt cattggatct ttttctttt ggtttctatg cccagggaat ggctttttgtt   780
gacattgcat atctgaagtg gaaaaatata agtggtaatc ggattatcta tagaagacat   840
aaatcaaaac aattgataca aatagtcatt acaccccaga tcaaatccat tatagacgag   900
catgggaata atacgaacaa tgcagaagag tatgtattct cggttatcaa aaacaatgca   960
aatgaatata ctcagtatcg tacagcttta ggacgtacca acaggcactt aaaaataatc  1020
tctgcgaaac tgaagattga tcctccgttg actacgtaca ccgcgcgcca tacatgggca  1080
acactggcca gagaatacgg ggccccggtt tcggcaatca gtgcgggatt agggcatacc  1140
aaagaagaaa tgacacttgt ctatcttaag gaattggatt tggctcctct tcaccggatc  1200
aataagatgg taaataatct tctggagaga aaatga                            1236
```

<210> 3530
<211> 198
<212> DNA
<213> B.fragilis

<400> 3530

```
aggataaaata tggcctggat ggtaacccaa aagaatatta agattcatac ctgcattgac    60
ggtatagatt cagttgaaga tgtcagagtg gtaatctcgc ataagaaatt gaaagctctt   120
ggtgcgaaac gtagagttta taaagacacg agagagagct tttttcttat tgaatccgat   180
tgtgaaatca tcctctaa                                                 198
```

<210> 3531
<211> 1182
<212> DNA
<213> B.fragilis

<400> 3531

```
agcacaaata tcatgattca aaactctatc tccgacaatc gtatcgtctg gctcgacgtc    60
atccgctgtg ttgcaatgat aatggtcata ggcgttcatt gtatcgaccc tttttacatt   120
tcgcccacaa tgcgggctat tccggaatac acacattggg cagcgatcta tggttcactg   180
ctccgtccgt cggtacctct gtttgttatg atgacgggac tgcttctgct ccccgtaaaa   240
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<210> 3532
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<212> DNA
<213> B.fragilis

<400> 3532

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<210> 3533
<211> 333
<212> DNA
<213> B.fragilis

<400> 3533

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<210> 3534
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<212> DNA
<213> B.fragilis

<400> 3534

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<210> 3535
<211> 192
<212> DNA
<213> B.fragilis

<400> 3535

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acctacacga cacaaagtga aacaatagag aaaggaataa atacatctcc atctaccgga   180
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ttcttccact ga   192

<210> 3536
<211> 3768
<212> DNA
<213> B.fragilis

<400> 3536
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<210> 3537
<211> 882
<212> DNA
<213> B.fragilis

<400> 3537

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<210> 3538
<211> 1134
<212> DNA
<213> B.fragilis

<400> 3538

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<212> DNA
<213> B.fragilis

<400> 3539
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<210> 3540
<211> 189
<212> DNA
<213> B.fragilis

<400> 3540
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tcaatcttca gtttcgcaga gattattttt aagtgcctgt tggtacgtcc taaagctgta   180
cgatactga   189

<210> 3541
<211> 1047
<212> DNA
<213> B.fragilis

<400> 3541
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<210> 3542
<211> 594
<212> DNA
<213> B.fragilis

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<210> 3543
<211> 642
<212> DNA
<213> B.fragilis

<400> 3543
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ggcaatgtag aagatttcgt atcactgaca cgtgtatatt ttcaatctgt aatcgcagta    120
aatttaggta tcacgaatat ccgttttctg ccggatgtag ccaacttcaa acgtttattc    180
aaagtagcca cacaaggtgg caaattagga cttgccgaga aatcagcttc ccgcaagatg    240
ttgatgcagg attacggcat cagtgaatcg ttttttaaag agatagacac ctctatcaag    300
aaaaactgcc gcacacaaaa tgatgtacag gcatatcttt tcatgtacca gggattctca    360
agtgacctga tgatgctgat gggtaacctg atgcaatgga agttccgtat gccggcgata    420
ttcaaaaaag ccttgcgctc catgacagaa aaaactgtgc acgatgtatg taccaaaaca    480
gtatggaaag ctgatgacgt acacaaaacg gctgccgcag tacgccagta caaagaacgt    540
ctcggatttt cggaacaatg gatgtcagag tacgtataca acattgtttt actggctaaa    600
aaagagccga aacataagga cgaagaagcg aaagcaaaat ga                       642
```

<210> 3544
<211> 354
<212> DNA
<213> B.fragilis

<400> 3544
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ccattaataa tatctacaac aatgtttaca gtaatcaaaa gaatggagat atcggctgca     60
cataagctga ttcttccgta ccggagcaaa tgcgccagtc ttcatggtca caactggatt    120
atcactgtct actgccgttc tgagcggctc aatgcagatg gaatggtagt ggatttcacc    180
cagattaagc aggccgttaa ggagaaactg gatcacagga atctgaatga ggtacttcct    240
tttaatccca cggcagaaaa tattgcccgt tgggtatgca agcaaatacc tcaatgttat    300
aaggtcgaag tgcaggaatc ggaagcaaat acggtgattt atgagaaaga ttaa          354
```

<210> 3545
<211> 1656
<212> DNA
<213> B.fragilis

<400> 3545
```
attataacct ttaaaaaatg caacactatg aaattaaata aagtaaagaa tatgtggaga     60
attctatcgg tcatagccct cttgggttca acactatgca cctcgtgtat atccgaagat    120
atcaaccgga acccgttgct cccgacgaaa gaagatgaaa agatggacgg agttatttac    180
ggagcctacc tgcccaatct tgaaaaaagt gtaatcccca tcggcaccgc ttcagaaagt    240
acagaaccgg taaatcgcta tcagatcgga gtaaatctgg ccggtgacgc ctgggcggga    300
tacatgtctc cccgagacaa caaattcaac ggcagcaaga atttcaccaa ctatttcatg    360
tacgaaaact gggtgaacta tgtgtattct tttatggtga cggatgtata ttcgccatgg    420
atgcagataa aacgcatctc gcaggatgaa gggacaagaa atgacgagat ttatgccttg    480
gcccagatca tcaagatcgc ggcactgcac cgcactacgg atatgttcgg cccgattccc    540
tactcacaag tgggcaaagg ttcttttaaa gtggcatacg actctcagga aagcgtatac    600
cgctcttttc tgaaagaact ggaagaggct gtccaaaccc tggacgatta ctcgaataag    660
agcaaagaag tattgcctgc cttcgacatt gtttataacg gcgatgtcaa taaatggatg    720
cgctttgcca attcgctgat gctccgcctg gccatccgtg tccgtttttgc cgatgcggga    780
```

```
ctcgccaaag aatatgcgga gaaagccgag aagcatcccg caggcctgat cgacagtaaa    840
gaactggcag cccatatggg taaaggagcc ggcctgcaga tgaagaatcc gctgaaagtg    900
atcaacgaag aatacaatga cacccgtatg ggggccacca tctattctta cctggcagga    960
tacaatgacg cccgtgctgc catatacttt gtcaaaaaca atggtttcaa agccgtacgt   1020
tgcgggatcg ccaagtccgg agacgcctat aacggattca cacgcccgaa cgtgcatgaa   1080
gacgaccctc tctattggat gaaagcatcc gaagtatgct tcttgaaagc cgaaggggca   1140
ctggccggat tcgatatggg cggcagtgcc ggcgacttct acaacgcagg catccgcatg   1200
tcgttcagtg agaatggact ggacaattcg tcggccgaaa cctatctgaa agactccacc   1260
cgcaaaccgg ccaactacac cgatacctcc aacggcgagt tgagcgccaa tgctccgagc   1320
agcatcacca tccgttggga aaacggagct acggaagaag aaaagctgga acgtatcatc   1380
actcaaaaat atctcgccat cttccccaac ggacaagagg catggaccga gtggagacgt   1440
accggatatc cccgccaaat agtcgttgcc gaaaataaaa cgaactccgc agtattgatc   1500
ggaaacggat acgacctggg aggcgtaagg agactgccct atccccgcac cgaatatgaa   1560
caaaacggcg aaaacctcca caacgccatc agccagtatt tgggaggagt agacaatgct   1620
gcccccaaag tatggtggga caaaaaaagc aaatag                             1656
```

```
<210> 3546
<211> 681
<212> DNA
<213> B.fragilis
```

```
<400> 3546
gaggaaaaga tggaaaaaag attcatgcaa tctgttgcca tgcggattat atataaaggt     60
gttttccact ggttcctgaa attaatcgta ggggttcagt tcaccgattg ccagttcctc    120
aaaaaggaga agcagtttat catccttgcc aatcataaca gccacttgga tacccctcagt  180
ttgctatctt cttttgcccgg taaccttttc ttttcaaccc gggtgctgcc gtatcggcag  240
tatttcggga aaactcgctt tcaggcttcg ataagtaact ttttcatcaa tactctttta   300
atcaggagaa aagggggaaaa agattcggaa catgatccga ttcgcaagat gctcgaagcc   360
attgatgccg gatattcact gattcttttt ccggaaggaa ccagaggaaa gtcggaacaa   420
atgggaaaaa taaaatccgg tatagcccgt atcctgtctc tgcgacctga agtgaaatat   480
attcccgtgt tcatgaccgg catgggacgt tcactgccta aaggcaaaat gatactgcta   540
ccctacaaag catccgtcta ttacggtata cccacattgg taaagagtac agatacacat   600
gaaatattag accagattac aggtgatttt gaagtaatga aagaaaaata tcaagtcgtt   660
atcgacgaag aagaggaata g                                              681
```

```
<210> 3547
<211> 231
<212> DNA
<213> B.fragilis
```

```
<400> 3547
tcttttttctg tttttagatg tttatattct ttttcaaccc gggtgctgcc gtatcggcag    60
cctccgtttt tttcgacttt gcaaaggtcg gtattcggta cggtacggga aatggccatt   120
caaccggata atttggcaat tcttcccgat tacacaaaaa catctatttt catcccggaa   180
agggaccggt ataggaagaa agccggagca ggaacaccta tttatatata a            231
```

```
<210> 3548
<211> 1599
<212> DNA
<213> B.fragilis
```

```
<400> 3548
gttgctgact tttcaatctc ggatgatctg gctgccaaag ttactttagt acccatcgag     60
ggatattacg ataagggtaa aagtcgtcag aatcaagctg aggcacaggc ggtagtagac   120
gagattgttc gcagactttc cgatccggaa ttgagaaatc agagtatagg tgttgtaact   180
tttagttccg tacagcagac tttaatagaa gacatgttat cggatgttgt tttacagaac   240
gcagaattag agaatcttgc attcaatcgt gaagaacctg tttttattaa gaatctggaa   300
aatgtgcaag gggatgaacg ggacgttatt cttttttctg taggttatgg tccggatgtc   360
aacggaaggg tgagtctcaa tttcggaccg ttgaataggg atggtggcga acgtcgtttg   420
```

```
aatgtggcag tgtcacgtgc ccgatatgag atgaaagtct tctctacatt aagagccgac    480
cagattgatc tgaaaaagac atcttctata ggagtggcag gtttgaaata tttccttgaa    540
tatgcaggta agggtaccgg agttttgaat cattcttatg tagcggtatc cgaagaggtc    600
gaaatgggtg agctgattgc tgcggcactt cgtgaaaaag gacatcaggt gaaaaccaaa    660
atcggatgtt ccggattcaa agtagatgta ggtattatcg atcctaatga tacctcccgt    720
tatatgctcg ggattttgtg tgatggcgag aattatcggg ctgcaaaaac agctcgggat    780
agggagattg tgcaagacag tgtactgaaa atgttgggat ggaacatttg taaagtatgg    840
actctggatt ggtgggaaga ctcacagaaa gttattgacc atatagaggc ggaattgaaa    900
agagctgagt gcggaaaatc gcaacgatcc gttccggtga tttctttggc ttcaggatcg    960
ggagaagtgc aaaaagaggg tttactatgc catgcacaac actgcttagt gaagttgccg   1020
gagcaagtaa ttcgggaaga agtgaaaact gcgtcaccgg agatttatga aaaaactctt   1080
ctaaactctg taaatgtatc tgcttgggaa ttgatgatgc cacgccggga gccccgtatc   1140
agaaacaat tgaatgagat catgcgtacg gaggctccga ttagccgttc attgttaagc   1200
agcaggatct ttaatgctta tggcattctt cggaagacag ctcgcctgat tgaatggatg   1260
gatggtatac tggataaaac tccttattac aagcaggaaa ttgatggatt ggttttctac   1320
tggaatacca aggaagaagc agactcgtat accggattcc gcatagactc caagcgtgaa   1380
gccgtagatt tacctcctcg tgaggtagcc aatgcggctc ggaatatact ggaacagcag   1440
gtcgctttac ctttggttga cttaatgcgg gtaaccgccc agttgttggg gtatgcacgt   1500
ttcggattga atgtggagac tgccatgcgc aggggagtgc aaatactgtt ggacggagaa   1560
gaggtaaaga tcgaagggggg taagatactt atgaagtag                         1599
```

<210> 3549
<211> 210
<212> DNA
<213> B.fragilis

<400> 3549
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atagacggtg tgttattaaa aagagagaaa tcgtttcttt ctgatcttaa aataggaata     60
tcttcgtcta tttgtgttcg ggccattaaa gtgtctcttt tctatgaaaa gttagtagat    120
attataatat tattattaag tataaaagtt gggataccgc ttgtcgattt ctgttttcat    180
tggctatatt tgcgtgtatc taaaatataa                                     210
```

<210> 3550
<211> 1845
<212> DNA
<213> B.fragilis

<400> 3550
```
aataatgaag ttatgaaaac aaatcaattc agagcgatgg tgttcgcact gctaatggca     60
gttatctctt tggctacagt gagtgcacaa gctattactg tgtcgggtac tgtaacagat    120
gcaaaagatg gaactccgct tgtcggctgt tcggtacaga taaagggtac tacgaaaggt    180
acggtgacga acatgaacgg tcaatacacg attcagtcta agaaggaga gacgttgttg    240
tttcagtata tcggctataa gcaagagaaa agggtggtaa aatcgtccac actggatgtg    300
aagatgaaag ctgacgaact tgtattggaa gaatgtgtgg ttgtaggata cggacacgaa    360
ctaagggcca ctaaatcaat gtctactgct tatatggcag tatgtcccgc atcgggaatc    420
atgtataatg ctgtaaatgc ggaagaatat ggcgagattc aggaaaatgg tttcaagaat    480
gtgtcggatg ctccactttc tacttttttct attgacgtgg atgccgcttc ttacagcaat    540
atgcgtcgtt ttatcaataa aggtaaactg cctccagtcg atgcaatccg tacggaagaa    600
ttagtgaact acttttccta tgattatccg aaaccgacgg gaagtgatcc tgtgaagatt    660
acgatggaag ccggaacctg cccttggaac gcagatcacc gtcttgtccg tatcggactg    720
aaggctaaag aaatcccgac ggacaatctg cctgcatcca atcttgtctt tctgatcgac    780
gtctctggct ctatgtgggg agcgaaccga ttggatttag tgaaatcctc tcttaaacta    840
ttggtaaaca acttacgtga taaagataaa gtagctatcg tgacttatgc aggcaatgcc    900
ggtgtgaaac tggaagcaac tccgggaagc gacaaacaaa agatacgtga agccattgac    960
gagctggaag caagtggttc taccgcagga ggtgaaggga tcatgctggc ttataaaata   1020
gcccaaaaga actttatatc aggaggcaac aatcgtatca tactctgcac cgatggtgat   1080
ttcaatgtgg gcgtatcatc ggacaaggaa cttgaaaagc tgattgaaca aaagcgtaaa   1140
agcggtatat tcctcaccgt attgggatac ggaatgggca actacaaaga cagcaagatg   1200
cagactctcg ccgaaaaagg caacggaaac catgcctaca tcgataactt acaagaagcc   1260
```

```
aaccgggtat tggtaaacga attcggagca actttacaca ctgttgccaa agacgtaaag    1320
ttacaggtag agttcaatcc ggcacaagtg caggcctacc gactgatagg ttacgagagc    1380
cgtttgcttg cagacgagga ttttaataac gatacaaaag atgccggaga aatgggagcc    1440
ggacatacag tgacagcttt ctatgaagta attcccacgg gagtaaagag tgattttgca    1500
ggaaaaatag acgatctcaa atatcagaaa aaacaaaaac catctacgcc tctcaatgaa    1560
tctgacgagt tattaaccat taagctacgt tacaaagctc cggacagtaa caccagcaag    1620
aagatagaat tgccgttgat tgaccataaa agcaaccggg tctctgccga tttccgcttt    1680
gcagccgcag tagccatgtt cggacaacta ctgagagact cggaattcaa aggaaacgcc    1740
acttatgaca aagtgatctc tttggcaaaa accggattag aaaatgatga aaaaggatac    1800
aaaagagaat tcatacggct tgcagaaact gccaaaagtc tctga                    1845
```

<210> 3551
<211> 315
<212> DNA
<213> B.fragilis

<400> 3551
```
aagctcttgg tgcgaaacgt agagtttata aagacacgag agagagcttt tttcttattg     60
aatccgattg tgaaatcatc ctctaaactt gaaggtatga agaaatattt agcaattgaa    120
attcgtggtg aaatattcgt tatgaatgat aatgatgaat taggaggact gatagataat    180
gatgtcccgt ttacggtcat tggtcatgta tgcaccgaag aatgtaatac aacatgctta    240
cattaccgtc aaggtacgtg tccctgtaaa atcatgaaag atacttttgg taaagtaatt    300
catgtttttg tgtga                                                    315
```

<210> 3552
<211> 576
<212> DNA
<213> B.fragilis

<400> 3552
```
atgttgtttt tcaaaagaaa catatcgaga ctatcggacg aggaattact gatacactat     60
acgaagtctg gcgatacgga atatttcggc gaattatata accgatatat accgttactg    120
tatggacttt gcctgaaata cctgcatgat gaagaccggg cacaggaagc agtcatgcaa    180
ctatttgaag atttactacc taagttggga aattatgaga taaaagtgtt caagccatgg    240
ctctaccggg tagcgaagaa tcattgcctg caacttttac ggaaggaaaa taaagaaatt    300
ccgttagatt atacggttaa tattatggaa tctgacgaat ttctgcatct attaagtgaa    360
gaggaaagtt cggaggaaca actgaaggca ttacatcact gtctcgaaaa gttgcccgaa    420
gaacaacgga ccagtattac gcgtttcttt ctcgaagaga tgtcgtatgc cgacattgtg    480
gaacaaaccg gatttactct gaacaatgtg aagagctata tccaaaatgg aaaacgaaat    540
ttaaagattt gcattaaaaa tcagcttaag ggatga                             576
```

<210> 3553
<211> 324
<212> DNA
<213> B.fragilis

<400> 3553
```
agcgcctcct ctcttaattt cttttcaact ataaatgctt attttatagc atctgtcagc     60
tcagcacccg gtttaaattt agcaactttc tttgcaggaa tctcaattgc cttcttggta    120
gaaggattga ttcccattct tgctgatctt tcagctacag agaatgtacc aaatccaacc    180
aaggaaattt tgtcaccagc cgacaaagct tttgtaaccg aagaaaagaa agcttcaagc    240
gctttcttag aatccacttt gctcaagccg gattccgctg ccattgcatt aataagttca    300
gccttattca taatacgtaa atga                                          324
```

<210> 3554
<211> 1734
<212> DNA
<213> B.fragilis

<400> 3554

```
tgtccgcttc cttttcttc ttttccttt tctttctcta cctttgccat tgatttattt    60
attaatacac aaactatgaa atcacttcat tctcttttat tttgcggagt acttcttttg   120
catgcttctt gttcgggaat aaaaacatca gatgagaaat ctttaggtga ttgtcctttg   180
gtagcgacct ggaaacaggc cggtactgac agtatagtgg tattggacgt cgggttgata   240
aaagatacca tgcagatacg gctcagccag ttggtagacg acctggagat tatcaagctt   300
gaaacccggg atacggcatt agtcaagtcc ggatatatgg cggtctctga ccggtacatg   360
cttttgggaa gttatttaat gccttgtaag ctatttgata agaatgggac tttcctgcgt   420
caaattggcg ggcttgggca aggtcccggt gagtatacca atatttatga tgctcagatc   480
gatgaagtga ataatcggat ttatatgctt ccgtggactt caaatcaact attggttttt   540
gacttggatg gaaatatact tcctccgata cctttgccgg cccgagttcc taaaggagtg   600
ttccgggtag atacgaaaaa gaatctattg actatgggca tcttgccttt ccaggattta   660
gaaaataaat ttgtgctttg gcaacaagat ctcaaaggaa atgtattgca atccatcagt   720
tcgactcctt attatactta tgatgattac agcaatgaag tgagcagtaa ccggaatgcc   780
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gatgcgaaag agaatcgttt ggttcctgtt tttaccgcca atttcgggac tcaggatatt   900
cccaagcata cgtatacgga gtttcccgga cattattggg tcaacatcat aacagaggtt   960
gttaatgggc agggtatgcc tccaatgaat gttttgatag ataagcatag cctgaaaggg  1020
acctattgta cattggtgat tgatgaactt ggggggcattc cggtcgagta tccgtacgac  1080
tgttttcagg acggacgttt tctgatgaat ctcgatccgg gagatttgat tgatgaattg  1140
gaaaaagtcc ttgctagacc cgaacgtttt tctaaagaag aatcagatcg acttacaaaa  1200
ttaaagaatt cgatttccgt tgacgataat aactatattc tggtcggtaa gtttaagtca  1260
aaaggagaaa gtctgatact ttctgctaat ccggttcaga aaataacgga gcaggaacaa  1320
caaccggcaa aagaggaacc ggtaaagact gccgttcagt ccgaagtagc atcggaggcg  1380
gatacagtgt ggagtgtatc tccatattca gctatacttc ctgatgccat tgattatttc  1440
cgtactcata ataaatataa agattgggat ccgaaaaagg gcaagcgcgt ccttgtgcgt  1500
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gatcctcaga gcgggggctat gaagaataag agcgagggaa cttgtgggct gaaagagttg  1620
gatgaagaag ccttaaggct gatccggcag gctaaacttt tacccggaat gacagataaa  1680
aaaataccgg tcagaagtaa attcgttatt gtagtcgatt tccctcctaa atga         1734
```

<210> 3555
<211> 195
<212> DNA
<213> B.fragilis

<400> 3555

```
cttcgcccgt tacggctctt ccccaaagca cgcaaaggaa gaattgttct tttgttcatg    60
attcatcagc cttgcaagca aaaagacagg aaaaagaccg atccgctaac tcgtctttac   120
aaaaagaatg cccaaccgga ggccgaacag gaagaaaacc gggtcattga agggtcaaag   180
ccggggatta agtaa                                                     195
```

<210> 3556
<211> 486
<212> DNA
<213> B.fragilis

<400> 3556

```
ctcgtctttta caaaaagaat gcccaaccgg aggccgaaca ggaagaaaac cgggtcattg    60
aagggtcaaa gccggggatt aagtaagaat aagtccggat tcgatactaa aagcctcttc   120
gttttccgaa aaagaagtaa gcatttcctt caaaagacgg ttacattttc taaaaacgct   180
tacttctttg cactgacatc tccatacgtt ttgaaaacta cgtttactgc tccggaaaac   240
acgacttatt ccggctcttc atgctctaac cggttgctct ccgaatcacc taccggagta   300
tcaaaaagcc taaaattccc ctccctgaag agcaccggga atatttactt ccagatcgct   360
ttctttctga cggaaaataa aagccggaca aaacaaacg ataaaccggg aaacgaaata   420
gagacgtttt tccggccccg cctgtcccga gagtcgaaaa aaagaaaact gggaggtttc   480
atttga                                                               486
```

<210> 3557

<211> 1203
<212> DNA
<213> B.fragilis

<400> 3557
```
gggattgata cgttgctcat gaacccaaaa ctttgttgca aaatgactaa aacgactaat      60
atgaaacaga acaccttttt tgttaatgta tggaccttga tgctgattct gggtcttatt     120
gcttgtggag agaaaaaaac gcaggtgaaa acagaacttc agagaataga agcttttgca     180
tttgatgtta atgatgatta tttacaaagc tatgccggta cttttttgcta ttctacttca     240
gcccggatcg atggtaaaga gtgtctgatt gtttataatg gaaaacttca ttccattgac     300
atcctgaatc tggctgatcg ccggccatta aagcaaatag ctctggctaa ggatggtccg     360
gatcagatac ttgctcccaa agggatcggc tattataaag attcgtttat catactgaat     420
accggtggtt tgtatcgggt tggtcaggat ggaaaagtgg tgtctaagaa acttctcaat     480
gattttccgc agattaagga agaagggtat ggaatagccg ttcccgatct tactgtttac     540
tttagcgtgt atagcttctt cggatttgat gctgcgaatg gaagagtggc tttacccctc     600
tacttttatg agaaagatac tacgggagaa tatccgaaga aagtgctgat tgtttcgtgt     660
gacgattgga atatacggga tgaagtggag atacattgtc ctgatgtgat aaggaaagag     720
ggagatatgc aattactggg ttgtgtcaac gtgcttccct acggtgactg gttgatttat     780
aatttccctg cgtcttccaa agtttatgtt tacgatctgt ctgtaaaaaa gagtaaagaa     840
tatgattttc cttctacctt tacagatcct ttttttccatt taccggatat aaatgggtcg     900
gagcccggtt tcggatgcct caaaaccggt tattatttcc cattgtgtta cgatgcctat     960
cataatgtgt tctggcgtat tcaacatggg cctttagatg gtcatggagt gggaggaaag    1020
ccctttttccg tcatgtgtat atcacctgat ttttttgaata gtgcagagta tgtgattcct    1080
gccggtgcat ctatctatcc cgatttggct tttacagatt ctttgatctt gttgccgtat    1140
acgggaggtg ataaaatcgg tgaaaacaat atgtgctttt atggactgca atatagagaa    1200
tag                                                                  1203
```

<210> 3558
<211> 324
<212> DNA
<213> B.fragilis

<400> 3558
```
aacgtttatt taataattga taaaaagcta aacatgaaga agattgattt aattagaagt      60
attgctgtta aaagcaattt aaagaaagag cacattgcca ttgtggtgga aggtgtgatg     120
gaggctattg ccgaggcgct acatcaggga gaatccgtca cattggtagg tttcggaacc     180
tttgaagtaa aagagcgcaa agcccgtaaa ggttataatc tgtctacggg agagataatg     240
actattccgg gaaaaaagac ggtgagattc aaaccgggtg caaagatgaa tcttgagacg     300
aagcatcagg atacctcccg gtga                                           324
```

<210> 3559
<211> 1839
<212> DNA
<213> B.fragilis

<400> 3559
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gcgcaggtgc agctgcaaaa gacgaaaaaa gagtttgaag gacacctcac ccttgtggta     180
ttccccttcc tgaaaatgtc gaagaagggc ccggagcaaa ccgcacagga aatcggtgag     240
tatctgaaag ccaatgaacc ggctgtggca gctttttaatg tgatcaaagg tttcctgaat     300
ctgaccgttg cgtcggctac gtggatcgaa ctgcttaatg aaattcatgc cgatgcgcaa     360
tatggcattg tatcggcaga tgaaaatgcc ccgctggtga tgattgagta ctcttctccc     420
aacaccaata aacccttca cctgggccac gttcgtaata acctgttggg taatgcgttg     480
gccaatatcg tcatggcgaa cggcaataag gtggttaaaa ccaatattgt caacgatcgc     540
ggtatccata tctgtaagtc gatgctggca tggcaaaagt atggcaaggg tgaaactccc     600
gaatcatcag gcaaaaaagg cgatcatctg gtaggtgatt attatgtcgc tttcgataag     660
cattacaaag ctgaagtagc agagctgatg gagaaaggca tgtcgaagga gagaggcggaa     720
gctgcctccc cgttgatgaa tgaagcgcgt gagatgttag tgaaatggga agccggtgat     780
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ccggaagtgc gtgcgctttg gcagatgatg aataactggg tatacgccgg ttttgatgaa    840
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gaaggtaaag agaaagtgat ggaaggcctt gagaaaggtt tcttcttcaa gaaggaagac    960
ggttctgtct gggctgacct gacagccgaa ggattggatc acaaactgtt gcttcgcggc   1020
gatggaactt cggtatacat gactcaggac atcggtacgg ctaagctgcg ttttgccgat   1080
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cggtctgtgt tgcgcaaagc cgccgaagcg ggtatcgtga ttccggaagt acttccggcc   1560
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gtagtgcgcc aggcaggtga agattatagc ccgtcgggta tcgccaacta cgtttacgac   1680
ctggtgaaag agtacaatca gttctatcat gacttcagta tcttgcgtga agaaaatgaa   1740
gacgtgaagt tattccgtat tgctctgtct gccaatattg ccaaggttgt ccgtttaggt   1800
atgggattgc tgggcattga ggtgccggat agaatgtaa               1839
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<210> 3560
<211> 1353
<212> DNA
<213> B.fragilis

<400> 3560
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atatccaagt caggaatacc tgtgattaat ctttctgagg atgtatcgac tgtaccttca   180
cttcttttaa gtgaggctgc ctcaaaggtc gatatagtac cgttagaagt gacggatgaa   240
tctctattgg gggaaatcta tcatcttcaa ataaccgaga acgatatatg ggtacaccat   300
tataaagata aatgtatttg ccgtttttcc cgttccggga aatttctgaa taaagttgga   360
aaaataggtc aagggcctgg cgaatttatt caattatctg attttttat agatgagaaa    420
catagagaaa tctatattgt atctgcatca agaggcattt ttgtatatga ttttgatggt   480
aatttcaaga ggcagcctac cagaacaata gtagaaacta tgttcggttc tatttttaat   540
caatttatga tatataataa tcacttttt attcttcaaa atttaccttt ataccgagaa   600
atacctaaag attcgttatg gtctcttgcc ttggttgata gttcttacaa gaaaaaaag   660
atatttaaaa accctgtaca tataggtaaa gaagatcaaa ttatagagaa tcgtatccag   720
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caactaactc ttaagtttcc tgacactgat acaatttata gctatgacag tattaaagag   840
gaattagtgc ctcagtatgc catttgggta gacgaagaaa aaggagatta cgaatataca   900
catttatggt ttcgtgacag gaaagctttc gattattttt cgatacactc atactactct   960
actaaagaaa atatttattt ggtaggcagt aaaggagagg aggtgtatat atattgttac  1020
aataaacaag aaaagaatgt aaggttgcaa aaacaacaag gagagataac cgagcgtgat  1080
gtgtcttggt ttagtattcc tttccgtcga atggaatgtc cgtttgtcct aagcaatgat  1140
ctatgtggcg gtgatttat tatagatttt cgctcttctg gtaaatactg ggtagatgta  1200
ttatatcttg gcaatgatgg aaatagggtt gatttgaatc aaataaaatc atctactgta  1260
atagatgaat ccaagaaaaa ggagctaatt caggtttttgg aaagtgcgac tgaggatagc  1320
aatccggttt tgatgattgc aactttaaaa taa                1353
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<210> 3561
<211> 207
<212> DNA
<213> B.fragilis

<400> 3561
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accactgtat ataagcacaa tagacatgaa tcgcacgatt ttaaccctaa atacccggac    60
agttacaagc ttgtaataca agtcaatttt accattatac ctactttgc cctctatatc   120
caccaatata atgccaacgg ttcttccaaa aaccttctta tggtccactc ctataaaaga   180
caatatttag tctatacctt cttttga                     207
```

<210> 3562
<211> 1101
<212> DNA
<213> B.fragilis

<400> 3562
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atcggaatgt tactgttgac agcttacagc ccgtatatca atcccgaagt gcatccggtg   120
cagtcatgct tgggactgac tttttcccatt tttctcgtca tcaacttctg ctttctgatc   180
ttttggctca tcgtgcgtta ccgtttcgca ctggtccccc tactgggttt cctcctttgc   240
tatccgcagt tgcgcaccta tatgcctgtc aacccgggaa cggccggaca accggaaaac   300
agcatcaaac tcctttcgta caacatcatg tcctttggga acatgaagaa agagaacgga   360
caaaacccca tcctgaatta tataaaaaac agcaacgccg acatcgtctg catgcaggag   420
tatgccggct ccgaaaccgc caagatacat ctcagcaata aagagatcag gcaggcatta   480
aaggattatc cgtatcacaa tatcaagcaa gtgggaaaaa ccggagcagg cagtcaactg   540
gcctgttact cgaagtttcc gattctatcg gcacgcatgc tcgactaccg gagcaactac   600
aacggcagca tggtttacga gatcaagata ggaaaagaca ccgtgctgct gataaacaat   660
caccttgagt cgaataaact acccgagaa gacaaagtgg tgtatgaaga catgctgaaa   720
gatccgaagg cgggaaaagt gaaaagcggt gtacggcaac tcgtcaataa actggcagaa   780
gcttcggcca tccgctcggc acaggcgcgc accatcgctc aggaaatagc ccattcacct   840
tatccgtcgg tcatcgtttg cggcgacttt aacgactccc cgatttcgta tgcccaccgg   900
gtcatctcgc aagatatgga cgatgctttt actgaatcgg gatgcgggct gggcatctca   960
tacaaccaga ataaattcta tttccggatt gacaatattt tggtcagtaa aaacctgaaa   1020
gcgtccggat gcacggtgga caattccatc aaagactcag accattatcc catctggtgc   1080
tatattacgc tccccgatta a   1101

<210> 3563
<211> 258
<212> DNA
<213> B.fragilis

<400> 3563
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ttcattatga tgcgcgaaga agctaatacg cacattatca cattaattac attaacaaat   120
aagaaggatg cctactgtaa caaaaaacct gataattatc aatgttctcc tgttcctcgc   180
acaatttgta gcacaaagct atgggatcaa cttatccgac tatctgggtc tgcactttt   240
ccttgccgac aattttaa   258

<210> 3564
<211> 1827
<212> DNA
<213> B.fragilis

<400> 3564
gaacttaata aggggtcaga tatgcaggct attatattgg cagcaggaat gggcaggcgt   60
ctgggagaat tgacccggta cgacactaag tgtatgattg aggtgaacgg tatccggatc   120
atagatcggt tactggcaaa cctggcagtc gcaagactat cgaggattgt gcttgtgatt   180
ggttttcaag gtgacaaact acgggcgtat ctgggaaatg aatattgcgg aattcctatt   240
tattatctgg aaaacccctta ctatgcacat accaataata tttattctct gtttctggca   300
cggcaccact agcgtctga tgatacttta ttgttagaat cggatattgt ttttgagaag   360
agaatacttg aaagagtgct cgaagaaccg tatccgaatg tagcagtagt agaccgttat   420
aagagttgga tggacgggac tatggtgact gtggatgaaa agcagtttat tgtggacttt   480
gtatctaaac atactttttc gtacgaaaaa acttctactt attttaagac ggtgaatatc   540
tatcgtttta gtaaggaatt ttctgtaggt aagtacgtac cttttctgga agcctattgt   600
aaatgttttg ataatagtgc atattacgaa caaatactgg ccgtttgtc tttgttggat   660
aaagccgggc tgaaggcttt gccgcttgag ggtgaaaagt ggtatgagat agatgacatg   720
caggatttag atattgccga aacgctattt ggtaagaaag aagggctttt gcccggttac   780
cagaaacgtt atggagggta ttggcgcttc ccttтcttgc ttgattttgc ttatctggtg   840

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aatccacatt tcccgacaga aaggatgctg gaagaactga aggctaattt ggataaactg      900
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attcctgcgg aggctgtcgc ggtggggaat ggcgcggcag agttgataag aaagctgatg     1020
gagctgcttc ccggtagaat gggggtgatt cttcctacat ttgaagaata tctggtgcgt     1080
gatgaccgga tagagacttt cttgccgttg gggccaggtt atcgctatac cgtaagcgac     1140
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ccctccggaa atagtattcc ttacgaggat ttgatttcat tagcgggatg gactcaggag     1260
cgttcgatac ggctgattgt ggatgagtct tttattgact tctcggaggg aggagaggaa     1320
acttctctga ttggtgacaa gatactgaag gagtataatc atctggtggt gataaagagc     1380
ctgtctaagt cacatggaat tcccggatta cgattgggaa ttgctgtttc cggtgaccat     1440
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tactatttac agattctgga caaatacaca atcgactacc gtcaggcatg tgcccgcttt     1560
agagaggaaa gaacgctctt ttttgaagaa cttcaggagg taggctattt agcggtattt     1620
ccttcacaag caaacttctt tttatgtgaa gtgacccata agtacagcgc ccgagagctt     1680
gcggaagttt tgctgagaga gcatgatatt ctggtaaaag actgtagctt gaagagggga     1740
atgtatggaa agcagtatat tcgtattgct atcaggagta aagaggaaaa ccggtatttg     1800
gccggaatat taaaatataa attatga                                         1827
```

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<210> 3565
<211> 465
<212> DNA
<213> B.fragilis
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<400> 3565
aaaagcctcc tccgcgtaat tgcggaggag gctttttatt ttctgacaga ccttcccttc      60
acagagacac gatcgaatga aaaagaaata aaggggcgtg agtgcaggtg caatttactc     120
aatcttcctc atggtcattt gaccaaggtg atcacatcgc atacaaaaag taagtgcatt     180
cttgccccgc cgggaagaat gcacttgcac acaaacaaaa caaacaataa gccgatctgt     240
cacagatggg cattggcctt aattagaact ttcacaatct caccgggagg tatcctgatg     300
cttcgtctca agattcatct ttgcacccgg tttgaatctc accgtctttt ttcccggaat     360
agtcattatc tctcccgtag acagattata acctttacgg gctttgcgct cttttacttc     420
aaaggttccg aaacctacca atgtgacgga ttctccctga tgtag                     465
```

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<210> 3566
<211> 3036
<212> DNA
<213> B.fragilis
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<400> 3566
attaaaagta aaatgcaaaa caaaggattt gtaaaggttt ttgcggtatt actcacgctg      60
gtatgcgtgt tctacctctc tttctccttc gtgactcgcc attataccaa taaggcaaaa     120
gagtttgcga aaggcgacgt gaaggtagag caggattacc tcgactctct ctccaacgag     180
aaagtatggt tgggtaacta tacgctgaaa cagtgtcgtg aaatggaaat cagtttaggt     240
ctggacctta agggaggtat gaacgttatc ctcgaagtgt ctgtacccga tgttatcaaa     300
gcattggctg acaacaagcc cgacgaagct ttcaacaaag cactggccga agctgccaaa     360
caggcaacca ccagccagga cgacgtgatc acactgttta ttaaagagta tcacaaagtt     420
gcaccgggtg ccaaactctc tgaactcttc gcgacacaac agctcaaaga caaagtaaac     480
cagaaatcat cagacgccga agttgaaaag gtgctgagag aagaagtaaa agctgccgta     540
acgaactcat acaacgtgct tcgtacacgt atcgaccgct ttggtgtggt tcagcccaac     600
atccagagcc tcgaagacaa aatgggacgt atcatggtgg aacttccggg tatcaaagaa     660
cccgaacgtg taagaaagct gcttcaggga tcggctaacc tcgaattctg ggaaacatac     720
aacgccaagg aagtagctcc ttacttgcag gctgccgact ctaaactccg cgcagtcctg     780
gcacacgaag ctaccgtcaa cgatacagtt gccgcagtag attcaaccgc cttggctgca     840
gcagaagcta ctcccgataa agcagtcagc gctgccgaca gccttgctgc cgcactgaaa     900
ggcggagaaa agaaacagca ggcttcttct gccgatctgg aacaactgaa gaaagagcat     960
ccgctactgg ctatcctgag tgtaaatcca aacggaggcc ctgtggtagg ttatgcaaac    1020
tataaagata cagcgactgt caattcatac ctcgctatga agaagtggc tgccgagttg     1080
ccgaaagatc ttcgcctgaa atgggggtgtt tctccgttcg aatacgatcc gaaaggacag    1140
acttttgaat tgtatgccat caaatcaacc gagcgtaacg gtaaagcacc gctcgaaggt    1200
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gacgttgtaa ccgatgctaa agacgactat gaccaatacg gcaaaccgtc tgtaagcatg    1260
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tccatcgcca tcgtattgga taattatgta tattccgctc cgaacgtaag taacgagatt    1380
acaggtggta actcacagat caccggccac tttactccgg aacaggcaaa ggacttggct    1440
aacgtattga agtccggtaa gatgccggct cctgcacaca tcgttcagga agacatcgtc    1500
ggtccgtcac tgggtcagga atctatcaat gcaggtatct tctcattcgt tgtcgctctg    1560
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gaacacttca tgagcaaaga caaactgctg aatctgacat ttacttcacc tatctctaag    2040
aagatgctgg taaatacaca cttcgacttt atgggtggca acaagaaatg gctgactatc    2100
acaggcgtga ttttgctgat ctgtatcggt tcgctggtaa cccgcggttt gagccagagt    2160
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ggtaccgata agaagactgt acgtatcagt accaactacc gtattcagga cgaaggtaac    2340
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ggtacactgt catctctgtt cgtagcttct ccgattgcat atatgatgct gaaaaacaaa    3000
aaaggttcgg cacctgcaac tactacagaa gaataa                              3036
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<210> 3567
<211> 249
<212> DNA
<213> B.fragilis

<400> 3567
atttccccca atagagattc atccgtcact tctaacggta ctatatcgac cttttgaggca    60
gcctcactta aaagaagtga aggtacagtc gatacatcct cagaaagatt aatcacaggt    120
attcctgact tggatatagg ctcttgcttc ttattggaac tgcaccccaa taatacaaat    180
acgccgatta gcaataagga catgtgtttc atagccacaa ttgaattaag atttattgtt    240
tgtgcataa                                                            249
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<210> 3568
<211> 1482
<212> DNA
<213> B.fragilis

<400> 3568
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tataatagta gaaagtcgtc tttgctgaat gtacaccctg tgataaaggt gatagaggca    120
ttggacaaca atgatggaga ggaaactttg tttgctaaaa taatgaatca gaatttagaa    180
ataggtgatg atgaaaaacg tttgttattg gataaatatc tattttttgag ggataatggt    240
ttctttgaag agattaatga ggaagatttt atcgatggaa aaataactcc ggaaattgtg    300
gagaagcaaa ttgcattcat agataatgtt ctttttcaag taacaggtaa ctgtaacctg    360
cgatgtcaat attgttgcta tggagacatg tactcagata aagtggagaa aaaaaatctg    420
agttttgaaa cagttgaaac tgtattgaat tatttaatgt ctttgtggac ttccaataaa    480
aatctttctt atgaacatcc gatcagaata ggattttatg gtggagagcc tttggttaac    540
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ttttctttga ttgaaaaaat tgtttctcta tgcgaaagca ttaccgaaag gacaggtttg    600
gtatttatat atagtatgac tactaatgcc ttactgcttg accggtataa agactttatt    660
gttagacaca attttttctt attgatcagt atggatggca atgaagcaca taatgtgttg    720
agaataaagc ctgatgggga acaatccttt caaacggtgt atgaaaatgt gaaaaagtta    780
caacagcaat accctgatta ctttcagaat aaggttgaat ttaactcagt cctgaatagc    840
cattcttcgg tcgatgatat acatgacttt atattcaatg aatttggtaa aattcctttta   900
atagagacga tttcacatac agcactaagt gatgaacaaa aatatcaaga aatagctaaa    960
gattataaag agtctccaga aatgatgatt aaaagaaagg ataggtctcc agtatataag   1020
gaattgggat tcttctttta ttatcaatta gataacgctt ataaacatta ttgtgaggta   1080
ttgtatggga ctatcaagca gaaaaagaga atacctaccg gaacctgttt gccttttttt   1140
aaaaaaatgt ttgtgacagc tgataataaa ttgttaacat gtgagaggat cagtttacat   1200
catgtgttgg gcactgtaga taatgaagta catttgaact ttggggagat tgctagcata   1260
tataattctt attatgaaaa aatgagatct cagtgccggg gatgctattt aatagagaat   1320
tgtggtgagt gcttcttaca gtttcctttg aaaaatgggg taccggtatg tcacgtaaag   1380
atgaatgaaa ttcaatatca acattatttg tctgagatat ttggagtgct tgagaagaat   1440
ccaagtttat ttgaagaagt taataaaatg gtgtttgcat ga                      1482
```

```
<210> 3569
<211> 381
<212> DNA
<213> B.fragilis
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<400> 3569
tgtaattcaa atctgttagc catggataaa atagagttta gagaagataa gataacgttt     60
tcatataaga aatcttatgg agaatgtttg tatcaggatt taattgctgt ggaatatagc    120
aagccttact gtatattaca aataggaggt aggaacagta ttctgttttt aataagccta    180
cgtgtgattc tggaaaaatt gcctgccgat tttctgctga taaatagagg aattatagta    240
aataaagagc gtattgtaga ttgtgtactt caggacgggg catatcatat aaagatggat    300
aataataaaa tttataggat tagcactcgt aagctggcta cagttaagaa atattttatg    360
gtacaaaatg atactattta g                                             381
```

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<210> 3570
<211> 1005
<212> DNA
<213> B.fragilis
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<400> 3570
aacaaacaaa acgaacagtc tatgaagaaa gtcattttag cagtcgcctc cattgcattg     60
tgggcttctt gtatcgagga tgagaaagat tattctcaga ttatcgaaac acgtgtagca    120
aattgcgaaa catccaaaga tttcagcgta cctgtcaaag aggggtatac caccttttgtc   180
acctccggag aagatacccct ggcaatggct aatgaaccta tcaccatccg tatccccaaa    240
aacgccacaa tatcgactcg tgccgaagga gacggtatca acatcagtta tacgattctg    300
gacgaaggat cggaaacaac ttacgcaaag gtgtggcagg ccatcatgtt cgaagatacg    360
cagaatggtg attacgatta caacgatttg attatccatg taaagaatac cgccagtaat    420
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<210> 3571
<211> 3012
<212> DNA
<213> B.fragilis
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<400> 3571

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cgggatgaca tgacctatca attggctacc tgctacctga aagtcggcaa tgtcaaagag     480
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<210> 3572
<211> 2406
<212> DNA
<213> B.fragilis

<400> 3572
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cttgggaaag attttaaagt cctctcaagt tacggacata ttcgcgacct gaagaaaaaa     180
gaattttcta tcgatataga aaagaatttc aaacccaaat acgaaatacc cgcagagaaa     240
caagagctgg ttaataaact gaaagaagaa gcaagcaaag cagaaaccgt atggctcgca     300
tccgatgagg accgggaggg agaagccatt tcatggcacc tttacgaagt cctgaaatta     360
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<210> 3573
<211> 1710
<212> DNA
<213> B.fragilis

<400> 3573
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ggttatgttc gcctgggata tggcaactac ggtaacctgg acgttttagc caattatctg     360
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gccaatgtag actatgtaca ccagtttgca aaactggatt tgaacgtagc cggtaatttc     540
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aacctaagct tgggagccac ctacagaatc tttaaaggaa tttcggcata tgtaaaggct   1620
gacaatctgc tgaataagaa atatcagtac tacttatact atccggttga aggaatcaat   1680
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<210> 3574
<211> 1311
<212> DNA
<213> B.fragilis

<400> 3574
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ataaaatcat ctaccgtaat agatgagtcc aagaaaaagg agctaatccg agttttggaa   1260
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<210> 3575
<211> 1311
<212> DNA
<213> B.fragilis

<400> 3575
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tcgactgtac cttcacttct tttgagtgag gcggcggaga aattggaaat tgttcctttg    180
gaaatgacag atgaatctgt attgagtgat attacggaaa tgcaagtaac tgatcataat    240
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atatggatag atcatggacg cgaattctac atttatcgtt tttcccgtac gggaaaattt    300
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aaatactgga tagatatatt agaacctggc ggtgatgaaa actggattga tatagaccaa   1200
ataaaatcat ctactgtaat agatgaatcc aagaaaaagg agctaatccg agttttggaa   1260
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<210> 3576
<211> 1236
<212> DNA
<213> B.fragilis

<400> 3576
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<210> 3577
<211> 381
<212> DNA
<213> B.fragilis

<400> 3577
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tcagaaagat taatcacagg tactcctgac ctggatatag gctcttgctt cttattggaa    180
ctgcacccca atagcgtaat tattagtaat aataatatag acttcatcac aatttatttta    240
ttagaaacaa catattttc catcatagga acctactcta ttatttaaa gttgcaatca    300
tcaaaaccgg attgctatcc tcagtcgcac tttccaaaac ctgaattagc tcctttttct    360
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tggattcatc tattacagta g   381

<210> 3578
<211> 1200
<212> DNA
<213> B.fragilis

<400> 3578
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tatgtatctt atggcggtga tttgacaatg gcttcatttg ccaatggtgg aaagttttac   720
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gtgttgatgt gcggagatag actgttggat acagttaata gacaatctct cagagttagg   1080
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<210> 3579
<211> 1287
<212> DNA
<213> B.fragilis

<400> 3579
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aatcctgttg ttcgggataa tattattcat ttgtcaactg cgataaagaa tgttcgagag   180
gaaatgatgc tttcggagtt ggtggatagt gtcagatata ttcctttgga aacgaatccg   240
aattgtatgt tacgtaatta tcagcgtttg accttttctc cccaatacat attttactta   300
aactattgtt ttgattggaa tgggcagttc ttgttccgta ttgggagcca gggtcaaggg   360
gcttgtgaag atatctatgc gcatgtggcc gaaatagtat atttgaataa tcatttctat   420
gggaatgcct ctaaaataat agaatatgat gaccggggga agtgtacggg gaaagagcta   480
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ataaatacgg attacgaatt tgtagccaaa cgcagtatga tgccgtggaa caggaaaggg   660
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tatatttttt atacggatac agtttttact gttacccca cttccctggt acctcgctgg   780
gtggtggagt tggatgaaga attacggttt cctacccagt atctatatga agatggatta   840
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<210> 3580

<211> 1686
<212> DNA
<213> B.fragilis

<400> 3580

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<210> 3581
<211> 687
<212> DNA
<213> B.fragilis

<400> 3581

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tttttccttg ccgacaattt taatccggca cagctattca cttacatgtt tatgcacggg   180
ggattcaccc acatcttctt taatatgttt gcggtatgga tgttcggacg gattctcgaa   240
caagtatggg gcccgaaacg ttttttattt tattatatcc tctgcggcgt gggcgcaggc   300
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cagttgttca tcttcccgct gcctttccct atcaaggcaa aattcttcgt tatcggatat   540
gccctgatag aactgtatgc aggttttgcc aataatccgg gcgacaacgt ggcgcacttc   600
gcgcatctcg gaggaatgat attcggattc atcctgatca tgtactggag aaaaaagaac   660
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<210> 3582
<211> 930
<212> DNA
<213> B.fragilis

<400> 3582

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attacaacgc tgatcggtat cttactgcag ttgttcaacc ggagtgccgc cggtatcttc   180
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tggttcgggg cactgtttct gtatttcttc tcgggcaagc acctgagagg cctttatata   360
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gtggcaacag cctaccggga gccgaactat cccgtacgcc ttctcttctt cggcaatgta   540
cggttgaaat atctggccct gatcgtggtg ctgaccgatc tgctgttcat cacatcgagc   600
aatgcgggcg gacacatcgc ccacctgggc ggagcactgg caggactctg gtttgcagca   660
agcctgaaca aagggaaaga catcacttca tgggtcaaca aggcgctcga tgccatcgcc   720
gccctgttca gcgccaaaac ctggaagcgg aaacccaaga tgaaggtgca ttacggaaac   780
aatacccgtc agaacgatta cgattacaac gcccgcaaga aggcacaatc ggacgagata   840
gaccggattc tcgacaagct gaagaagtcg ggatacgaga gtctgacaac agaagaaaaa   900
aagagcttgt tcgacgcaag caaaagatag                                    930
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<210> 3583
<211> 234
<212> DNA
<213> B.fragilis

<400> 3583

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tcggataaag ttgtcgtagt cgtaagactt cctaacttcg cctgtatcaa ttcatcggca   180
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<210> 3584
<211> 1470
<212> DNA
<213> B.fragilis

<400> 3584

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tctatcagtt cggatgatgg tagttttgtt attagcaatg gaattcgtac gaataaccgc   180
tattatcttc ctgctaatag atatggggat agcgggggagt attggtctgc ttctgccgcg   240
attagtggtt cagcccgagg actttgcttt agatattcaa gtacttccat aaaagattgg   300
accactgcgt tggtgtctgg agccattcgt tgcgttgttg attctgagaa taattattca   360
aaagtttatc gtgttgttta ttcgaatacc gatcctctga atcaagaaaa taatttgtat   420
agcgttccgc caccggcatt gttgaacgaa ggagaaacga taacattgcc agcgctgtct   480
acaaaattca atgattacga agtacgtgaa gggagtaaag tggtaacaaa gtattttcat   540
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gatgggatag gaaacactga gtggagatt aggcctgaat ggactaaact ttgtaaaata   660
gagtatgttg ctactcctcc atatcccgga gctattttt attggcgttt cccagcact   720
actatcttcg taaagatagg gagagaaacat tccttatttt atgttgaatc agcagtaaac   780
tcttcgcctg tcaagatgtg taccggactg ctggttaatg gtattcgtta tagctttgga   840
gatgaaatag ttgctagcac tgatgtcaag atagaacctt attgggcaaa tacaccggag   900
accccgtttg catcaactaa tttggaactt tctaatccgg gttctactga tgcaaccttt   960
atttttgcac ctactggcag taagggtagt aagtgctccc atcaggttgc taattctaac  1020
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acatggcgat tacctgccgt gtacgaaatg gctgctctac ttcatccata tcaagatagt  1260
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ggaatcccag gtattgcggc ttcttatata accgctggta gtagaaataa taaccgtgtg  1380
gttactgtaa cgatttcgca aggagacggc ggtattactg gtggcatgtt cagtgctact  1440
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tctgattatg ctcgttgcat ccgccaatag   1470

<210> 3585
<211> 570
<212> DNA
<213> B.fragilis

<400> 3585
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cttaatcaat ttaaatactg tccgaaatgc ggttctgccg cttttgagat tcacaacgag   120
aagtctaaac aatgtaccga ttgcgggttc gtttattatt tcaacccgtc atcggctaca   180
gtggcactga tcttaaacga aaaagacgag ttactggtat gccgccgtgc caaagagccg   240
gcgaaaggga cgctggacct tccgggtggc ttcatcgaca tgaacgaaac gggtgaagaa   300
ggagtaagcc gggaagtaga agaggagacc ggactaaaag tgaaaaaggc aacctacctg   360
ttttcccttc cgaacattta tatctattcc gggtttcctg tacatacgct cgacatgttt   420
ttcctttgcc aagtggaaga tacaagtcac tttgaagcaa tggatgatgt ggcggactcg   480
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<210> 3586
<211> 621
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (596),(597),(598),(601),(602),(603),(604),(612),(613)
<223> Identity of nucleotide sequences at the above locations are unknown.

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agagatcggc acagccggta tgttccggat aaaaagactc cggccgagcc gatgcagttt   360
ggtggattac agttggatct tttcatttat gattgggatg gtaagtatga gaatgctttg   420
tcgaacagtt ttgagcggaa tttgagtgag agccgtattc atttgcggct ggatgaggtg   480
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nnnntctatg gnncctcccc g   621

<210> 3587
<211> 234
<212> DNA
<213> B.fragilis

<400> 3587
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actgccgatg gagcttactt taccgttgat ccaatcgcta aagcccggat acgtctcaaa   120
aagactgttc ttttcctgtg gatagctgaa cgtgccatta ttattcgaaa cggccaggcc   180
ataaggcata ttttccttat ttaccatatc gtaggatttg taatcgatgt ctga   234

<210> 3588
<211> 300
<212> DNA
<213> B.fragilis

<400> 3588

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gttacaaaag ctttgtcggc tggtgacaaa atttccttgg ttggatttgg tacattctct   180
gtagctgaaa gatcagcaag aatgggaatc aatccttcta ccaagaaggc aattgagatt   240
cctgcaaaga aagttgctaa atttaaaccg ggtgctgagc tgacagatgc tataaaataa   300
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<210> 3589
<211> 1281
<212> DNA
<213> B.fragilis

<400> 3589

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catcctgttc caatgaaact ttcagctttt gttgatagta ttacttatat tcctttggag   180
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gtttatccgg gaagcttatt tgataaagaa ggacgatttg taacaaatat tggtgcatta   300
gggcaagggc gtggtgagga aaccaatggt tggggatata gtgttttta tgatcttcag    360
agaaatgttt tctatacatt gggggataaa attatagagt ttgatagtaa tagaaaattt   420
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gatagcttat tccttgatcc tccgggagac gcgaatggaa tgtcatatac attctcacgt   660
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agtgatcgtc ttattgcact tgctgattca ctggatgatg agcaaaatcc gattcttgta  1260
attgctcatt taaagaaata g                                            1281
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<210> 3590
<211> 303
<212> DNA
<213> B.fragilis

<400> 3590

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gtagctgttt tgctgattgg cggatgtttg gatatgatat tccttgatcc gtctgtctac   180
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taa                                                               303
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<210> 3591
<211> 324
<212> DNA
<213> B.fragilis

<400> 3591

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ctctcgggac aggcggggcc ggaaaaacgt ctctatttcg tttcccggtt tatcgtttg   240
ttttgtccgg cttttatttt ccgtcagaaa gaaagcgatc tggaagtaaa tattcccggt   300
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gctcttcagg gaggggaatt ttag   324

<210> 3592
<211> 210
<212> DNA
<213> B.fragilis

<400> 3592
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acgattgata tgtgccgtgg catgttgtgt gcctgtcgcc ttgcaggcac aaaccagcga   180
gaaaataacg tctcccgtaa atctgtataa   210

<210> 3593
<211> 3069
<212> DNA
<213> B.fragilis

<400> 3593
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cgttatctta cgcagcgcgg atgggctcct ccgggaaaga aatggaagat gcctgtgaaa   660
gaacgtttgg aagctgtctt gaacagtata tatagaactg aaggatcttg gttaccgata   720
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accacttcgg taactccttt acccgcttta cagaagatag ctccgggcaa gatggtgact   2040
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ggaggtgtgc attacatttt gggggccaat atacccgttc taagtaacat gcaggtatct   2160
gccgaatgga caaaaagatt taagatcaag tatcatctga acttgccttc aggaaccggt   2220
catgctggtg atatgctacc tgaggatgaa tatgtgatgc ctggacagaa cgtgactctg   2280
gcagttccca ggctcaaatg cagcaatgag gatttcttct ttaccggttg gatgattaat   2340
gggcagttct atggtttagg ttcaagttac acaccgctac ccggtcagga tacagatgtc   2400

```
tatgcagtat ggaaatatgc tcaagctatg gaattcaatg taaccgtatc taattcaggt    2460
cgtggaaccg ataatgccac attggtattt acggacagta aagaagagac cggagcgttc    2520
tttcaaagtc gcggagtcgt tgcatggagc aatacgggaa gtcccgttac ctggtttgat    2580
ccggtaagca ccgggcgtac atggtcttcc aattggatgg ctttcgcgtc ggaagagttg    2640
catacttatg ctaacctcag aaatggcggc ggggacccgt gccgcttgat tgggtattca    2700
cagaagtatg taagtacgca gatctccaaa ggggaactac ctgataatag aacgtggaga    2760
ctgcctaaag gacgggagta tatgcagtat ggatttacac cggaaaatac agttggcagt    2820
tgggctaatg gctggacctt aacaatggt aaatttcttc cggcttcagg aatgcgtagt    2880
gttgctgacg gtcaactccg tgaatcaggc gtcggatatt attggttgag tgatcacttt    2940
gcgattatcg atcattttgg taagcagtat atgggtagag gaagtaaagt ttcatcggac    3000
aaggtgatag aagaaggtgt tgtatatcat tctgcagccg gcttccagat tcgatgtgtg    3060
agacagtaa                                                            3069
```

```
<210> 3594
<211> 702
<212> DNA
<213> B.fragilis
```

```
<400> 3594
aagagattat cggaaaataa taatttatct ttgccaatat taaatatgaa gattaactat    60
acatatatga tgcgatactc cgttattatt cccgtttaca accgtcccga cgaagtggac    120
gaactattgc aaagcctgac agcccaacac ttcaaggatt tcgaagtcgt ggttgtagaa    180
gacggatcat ctgtcccttg cgaaaagata gtgaaccaat accagggaaa gttggatata    240
cattactaca acaaaccgaa ctccggtccc ggacaaaccc gtaattacgg tgccgaacgt    300
agcaacggcg aatatctcat catactggat tcggactgta tcttgcccga aggatatctc    360
gatgcagtag agaaagaact gcagaccgcc ccggccgatg cctttggagg gccggaccgg    420
gcacatagtt cttttcaccga tatacaaaaa gccattaatt actccatgac ttctttcttc    480
accacgggag gcatccgcgg aggcaaaaag aaaatggata aattctatcc gagaagtttc    540
aacatgggtg tcccgccggg aggtttatca ggcattagga cgtttctcca atatgcgttt    600
cggcgaacac atcgatttca gtatccgcat atccaaggga ggataccaat gccgtctctt    660
tcccgatgcc tgggtgtacc acaaacgacg tacggatttt aa                      702
```

```
<210> 3595
<211> 765
<212> DNA
<213> B.fragilis
```

```
<400> 3595
cccgtgctat ctttgggtaa tgccgaaatg gaacgtttgc ggatgactac caaaacagga    60
caggcagaat ggcgcgcgtt ggacgagaac cagaaaatgc gggagttacc tctggcaata    120
gaactccagg actttacgat tgatgaatac cccccgaagt tgatgctgat aaataatgaa    180
acaggtgagg ccttaccgtc aaagaaaccg gaaaacctgt tgattgaaga taattttcat    240
accggacgat tgcttgattg ggaaattggt atcgagaaga aaatacctct ggctgccagt    300
gtagcgactc aggatacgtt gaattttgta gaatttcatt caatgggggc tacttatgct    360
gtttatctga aagctgtgaa taataagaca ggacagcagc gtgaaggatg ggtgagttgc    420
gggagtttta tgtttcctta taaagctatc cggcttgacg atcagaccag tctggtgatg    480
ccggaacgtg aaccccgtcg ttttgcatcc gaagtcaagg tttatacgga atcgggatgc    540
cgtgattcgg ctacgattga ggtgaataag ccttttgagt tggaagggtg gaaaatatat    600
caattgagtt atgacgagtc gaaagggcgt tggagtgata tcagcgtatt cgaactggtt    660
cgtgatccat ggttgccggt cgtttatacc ggtatctgga tgatgatagc gggagctgtc    720
tgcctgtttg ccttgtcaca gaaaagaaag gaggacaaca catga                   765
```

```
<210> 3596
<211> 285
<212> DNA
<213> B.fragilis
```

```
<400> 3596
aaaagcgtat caaaaccctc tcttttggtt ttccaccttg cgcctgatac cgtaatcaaa    60
```

```
ttggaaccgg ttctaaaaca aaaagaagca aaggaatcct ccttcacttc ttcttattcg     120
tttgcaatgg ctaatactta tgccttcact ccgttgtatt cgtcagaaac agtcagtttc     180
ttacgacctt tagcgcgacg tgcagccaat actctacggc cgttagctgt agccattctc     240
tcacggaaac cgtgtttgtt ttttctcttt ctgttagagg gttga                     285
```

<210> 3597
<211> 1884
<212> DNA
<213> B.fragilis

<400> 3597

```
caaataaaat catcatctat gaatagaaga ctttctatat tcgtaatcat tttgttttttc    60
ctgttacctg ttgccgcacg ggcacaggta acaggttctt tccgcttcgc acagttgaca     120
gacatacatc tcaatcccaa caatccgaag ccgacagaag acttgaaacg ttccgtcgaa     180
caaattaacg ccacaccggg agtagacttt gtattagtca ccggagacct taccgaagag     240
ggtgatcgca cgaccatgtt agttgtaaaa tctatcctgg accgactgaa agtgaaatat     300
tacgttatac cgggcaacca cgaaacaaag tggagtgatt caggttgcac tgctttcagc     360
gaaatattcg ggggagaacg ctttaaattc gaacacaaag gattcttgtt tttagggttt     420
aattcaggac cactgatgcg tatggcctac gggcatgtag taccgcaaga catcacatgg     480
atgaaacaag aaatggataa agttggaaaa gataagcctg taatcctggt cacccattat     540
cctatgcagg atggggatgt ggacaattgg tatgatgtta ccgatgccgt acgtccatac     600
aatatccgca ctttttatcgg aggacactat catcgtaatc gcttcctctc atacgacggt     660
ataccaggta ttcttacccg ctcaaaccta cgtgacaaaa acggttcaag cggctatagc     720
attttttgata tcactccgga ctctatcatt acttacgagc aacgcataga tgaaccaatg     780
aaacgctgga ctgccctatc actcaccaaa tcttattata accgtaccgg aaaggcagtg     840
aaatatccca gtttttcggt gaataaagag tatccacaag taaaaatagg ctggcaggtg     900
cagaccggtg tcggcatcta ttgttcacct gccctctgga aaggcagagt ttatgtaggt     960
gatgacttgg gtttcctaac ttgctacacc ctgaaggaag gacgtaaatt atggagtttc    1020
caatcaggga aacgcattgt gggcacacct gccgcaaccg acgggattgt ggtttttggc    1080
tccgctgacc acaacatcta cggattggat gctgtaaccg gtaaagaacg ctggagggtt    1140
acggttgccc aaccggtatt gggagcggta actattgaaa aaggtatcgc ttacataggt    1200
ggcagtgatt ccactttttcg cgccattcgt atcaaaaatg gtaaagtagt atggacttat    1260
accggtatca aaggttacat cgaaacaaaa cctctggtag aaggtgacaa ggtcatattc    1320
ggtgcatggg acaatactct ctatgctctc aataaatcca acggcaagga actctggaag    1380
tggaccggcg gactgacccg tatgcacttc tcccctgctg ccgtatggcc tgtagcagca    1440
catggaaaag tattcatcac cgacccacaa cgtgccatga ccgctatcag cttaaaaaca    1500
ggaaaaacag tttggcgtac cttccagtca atggttcgag aaacaatcgg tctatccgca    1560
aacaaaaatc agatttatag caaaacgatg aatgacagtg tcgtatgcta ttccaccatc    1620
agcgacactc cgaaagagat ctgggcatct aatgtaggct ttggctacga acatgctcca    1680
tccatgcaga tggaaaaaga cggtatagta ttcagtagta ccaaagaagg acttatcttt    1740
gcattggatg caagtaccgg acaagtattg tggaaacata agatcggcaa ttcactgatt    1800
aacaccgtac tccccatcag ccgccatcaa gtactgttta cagccaccag tggtgaaaca    1860
ggcttacttg agtggaaaga ataa                                           1884
```

<210> 3598
<211> 924
<212> DNA
<213> B.fragilis

<400> 3598

```
aaaaacttttc cgatcaaaac aaatcaaatt acaaaaaata ttatatattt gtatccaaat    60
caaaaaggct gcgaaatgaa acttattgcg gaaagtggtt ctacaagaac ggaatgggca    120
ttggttgaag acaatcatct cgtacaacgt gtgtttaccg aagggctaaa cccttTcttc    180
cagactagaa gagaaattag cagaagcgtc aggttgggac taccggaatc attcttcaaa    240
aaaaaactgg atcaagtata ttactatggt gccggatgca gttcatatga aaagaaaaat    300
atcttaggtg cctctttagt ggcacaattc aaaactccca ttcaggttga aagcgatttg    360
ctgcagcag ctcgtggttt atttaaatgt gaagccggaa ttgcctgtat cttgggtacc    420
ggatcaaatt cctgtttttta cgatggtaaa attatagtca aaaatgtgaa agctgccgga   480
tatattttag gagatgaagg cagtggagcc gttcttggaa aacttttttt agctgacctt    540
```

```
cttaaaggac tagctcccaa agaattggca aatgaatttc atgagaagtt tcgtatctcg     600
gtcaatgatg tcatggaatc tgtatataat cttcctttcc ctaatcgttt tttaggaacc     660
attgcgtatt tcttaggaga ttatatggat aatgaatatg tatataacct attaactaac     720
aatctccgta gtttctttaa ccgcaacgta tgccaatacg attatataaa ctatcccatc     780
cgctttgtag gctcactagc ttatgcgtat ccagatattt tacaagaagt agcacaggaa     840
ttcggagtag agatagatgt tatagaagag acacctatga atggtttaat cgagtttcac     900
tccatgaaca tcgaagagtc ctaa                                           924
```

<210> 3599
<211> 777
<212> DNA
<213> B.fragilis

<400> 3599

```
tactttagtc ccgtgttttt tgaatttggc ataaaagatt ttattgatat cctgttagtg      60
gctttcctgc tttattacac ttataagctg atgaaagcct ccggatctat taatgtgttc     120
accggtatcc tggtgtttat ccttatttgg ctggttgtat cgcaggtgct cgagatgaag     180
ctcctgggct ccattttcga caaattggtg agcgtgggag tcttggcgct gattgttctg     240
tttcaggatg aaatcaggcg ctttttgctg accctgggtt cgcaccagca cgccagtgcc     300
ttggtacgtt tccttaccgg caacaaaaaa gaaaaacttc agcatgatga tatcatgccg     360
attgtgatgg cttgcatcag tatgggaaag cagaaagtag gagccttgat cgttatggag     420
cgtaatgtac cgcttgacga tgtcattcgt accggtgaaa ttatcgatgc caatattaac     480
cagcggctga ttgagaacat tttctttaaa aacagccctt tgcatgatgg cgcaatggta     540
atcagtaaaa aacgtattaa agcggccgga tgtattcttc cggtatccca caacctggac     600
atacccaaag aattgggact tcgccaccgg gcggcaatgg gtatatcgca ggtttcggac     660
gctttggcca ttattgtttc cgaagaaacc ggagccatct ctgtggcatg gcgcggtcag     720
ttctatttgc ggcagagtgc cgaagaactg gaaagcctgc tgacaaagga aagctaa       777
```

<210> 3600
<211> 474
<212> DNA
<213> B.fragilis

<400> 3600

```
tccatttcgt ttactttttc tttatttttt tgtagttccc cactgttaaa taagaatctt      60
cgtgccttat tagttgctac cctaactcta ttttcataa ctttgcaacg ttttcaaaaa     120
tcaataggta atagtatgat acgtcagtgt gccattttat ttggctgttt ggctttgggt     180
gaattgattg tttatctcac ggggattaag ctcccgtcca gcatcatcgg gatgttgctg     240
ctcaccctct ttttgaaatt aggttggatc aaattgcatt gggtgcaggg aatgtccgac     300
tttctagttg ctaatcttgg tttttttcttt attcctccgg gagtagccct gatgttatat     360
ttcgacatca ttgcggcaca gttctggccg attgtgatag ctactctagt cagtaccctt     420
cttgtgcttg tcatcaccgg atgggtccat caattaacac gtaaactcaa atga          474
```

<210> 3601
<211> 1902
<212> DNA
<213> B.fragilis

<400> 3601

```
cccacaatac cattgagcat ggaaaacaaa atcaactttt ctcctccctc aacaagagag      60
gggaaaggtg tgaggttttt actcactacc ttttcaatat tgctttgtag cctgcaagct     120
gtggcacaat ctctgccacg tgtagctccc gaacaagtgg gcatggactc tcatcgcctg     180
ttacatgccg atgaagctat tcaccgggca atcgatcaca aagaaatacc gggagccgta     240
ctcgctgtca tccgtcatgg caaaatggct tatctcaagg cttatggcaa caaacgaatc     300
tatcccaatg tagagccgat ggaaataaac actgttttcg acatggcttc ctgcagtaaa     360
tctatgtcaa cagctgtttc ggttatgatt ctggttgaac gaggacaact tcgtttgctc     420
gatcgtgtca gcttttacct ccccgacttc caggaatggc ggggagaaaa cggggagaag     480
aaggatattc gtatcataga ccttatgaca catacttcag gtctccctcc ttatgcaccg     540
gtatccgaac tgcaggaaaa atatggttct cccaacccca aaggactgat agagtatatt     600
```

```
tccacttgca aacgtgaatt taaacctcag acgaaatttc agtatagttg ccttaattac    660
atcactttgc aacatatcat cgaaaccatt accgggcaaa gcttgcgaga ctttgcaaaa    720
gaaaatatct tcgatatact gggaatgcaa tacacggatt atctgcctac catacaacag    780
caggacggaa agtggatcaa tacggtggcc tgtccctgga tggaccggat tgcacctacc    840
gaaaaacaaa aagacggaag cgtactctgc gggcaagtac acgatccatt ggcacgtatc    900
ctgaacggag ggatctccgg caatgcaggt atcttctcta atgcaaatga cattggcatc    960
ctcgcagccg ctcttctcaa cggaggcgaa tacaatggtc accgcatcct cagcccgctg   1020
ggagtaaaaa ccatgtgtac agttccccgt gagctaaccg catttggccg tactccgggg   1080
tgggatattt tctctcccta tgcctcaaac aagggtgatc ttttcagtcc gaataccttt   1140
ggccatacag gatatacagg aacttccatc atcatcgatc cggacaacga cacggccgtc   1200
attctgctgg tcaacgctgt tcatccggaa gaccggcata gcatagtccg tctccgttcg   1260
ttggtagcca atgcagtagc cgcctctatc tgtcctcccg cacaagtata tacagatcat   1320
tattacaaac gcttcctgca atttgaaaca gaaacaccca tcagccccaa agatattgtg   1380
atggtgggca acagtctcac ggaaaatggt gggaattgga gcaagcgcct aaataaaaaa   1440
aacataagaa atcgggggat catcggtgac gaagcattgg gaatctgtca acgtcttttt   1500
cagatcttac cggggactcc tcaaaaactt ttcctaatgg ccggaatcaa cgatgtgtca   1560
cacgacctga gcaccgatag tgtagtcact ttgataacca aagtcattga gaaaatccaa   1620
accgaatcac cacgcaccaa actctacata cagagtcttc tgcctatcaa cgaatcgttc   1680
ggacgatata aaacgatgat cgggaaaact gacctgatac ccgaaattaa ccgcaaactt   1740
gaagcacttg ccaaagaaaa gaaaatacct tttatccacc tctttccatt atttacggag   1800
aaaaacagca acgtgatgcg aaaagaactg actacggacg gattacacct gacagaagag   1860
gggtatagaa tctggagtaa agcactgaaa cggtatctgt ag                       1902
```

<210> 3602
<211> 330
<212> DNA
<213> B.fragilis

<400> 3602
```
ctttgtcaac cacatgcgtt gtctggccaa tgtcaccacc atcggagacc aaaaccggag     60
aggttcgggt atgcctttta ctttcgaact gcccaacgga tggagcgtcc ctttttttcc    120
cggccccatt ttgatgcgga gatgaataca atgagtttgg cctttgaacc ggacttcaag    180
gcaattttct tcccgaagat tgattttgag ggaaagattc ccctgtttaa aagggcccgg    240
aaacccctaa aggataaaat tttttctccc aaagttccca aatcccagga taaattttt     300
tttcccatg tgggtgtttt aaccccgttc                                      330
```

<210> 3603
<211> 249
<212> DNA
<213> B.fragilis

<400> 3603
```
tttcaacagt ttgtgggtct ctttctcgag gaagaagtat tgttgcaccg gcattttcga     60
gcattggaac aagaaatgga agtacataac tctgagtata aaggtcctct acagtctgaa    120
agattcgtgc acgttgccat tcccagcgag ccaatttgga ttcgtaataa aagccgtgac    180
tttgccatag agcaatgtga cggttttgca atccgtttgt gggggtataa ggaacagata    240
atcgggtaa                                                            249
```

<210> 3604
<211> 414
<212> DNA
<213> B.fragilis

<400> 3604
```
ccattaatta ctaattatat gtcgaaaatg aattcaatgc ttatgggaat atgttttctt     60
ttgtcttctc tcttttcttg ccagcagtcg aaaggcgatt tcaagacagt gccggtgaag    120
gagtttgctt ctctgattga agatgcaagt gtgcaacggc tggatgtccg taccatggct    180
gaatattcgg aaggccacat tccggggacg atcaatatca atgtgctcga tgattcgttt    240
gcggatatag cagactccac acttcaaaaa gataaaccgg tggctttata ttgccgcagt    300
```

```
ggcaagcgaa gcaagaaggc ggctgccatt ctcagtgaga aaggatataa agtgtacgaa    360
ttggataaag gattcaatgc ctggcaggaa gcaggcgaga aagtggagaa ataa           414
```

<210> 3605
<211> 924
<212> DNA
<213> B.fragilis

<400> 3605
```
actggggcta ctgaaataaa aatgtggaaa gacttctttt acttcacacg tgcagaacgg     60
caaggtatcc tgatacttgc cgttttgtgt attctcgtat ttgtggccgg atggttgatc    120
cctgtcaaag agaacacggc aaaaaacaat acggaaaagt ttaaaaagga atatgccggt    180
tttatgtcct ccatccgcga aaaagaacaa aagatatatt cacacaataa ccgctttcag    240
cccccacgaa cagtccgtct gactacattt gaccctaata tcaccgactc tgtcggattc    300
cttgatttgg gactgccggc atggatggca aagaacatcc taaagtatcg aaataaaggt    360
ggaaaattcc gtcgggcgga agacttccga aaagtatacg gattaacgca ggaacaatac    420
gaaatgctcc taccttatat tcatatagct acgctcgcaa agcccaaaga tacacttcgc    480
ctctataccc gaaagataga agaagacaca ctgaaatttt ttaaatatgc agccggaaca    540
gtagtcgaac tgaacagtgc agacacaacg gaactgaaga agatccccgg tataggtagt    600
ggaattgccc ggatgataac aggatatcgc aaccgtttag gaggatttta tgatatagca    660
caattgaagg agatacatct cgatgtagaa aagctccgcc cctggtttaa cgtggcaacc    720
ggcaataccc gacggctgaa tatcaaccga accggtatcg aaaggctcaa agctcatcct    780
tacatcaact tctaccaagc caaaataatc gtagaataca gaaaaaagaa aggaatatta    840
aaaagtctga agcaactttc tctctacgaa gagtttacgc ctcaagatct ggagcgaatc    900
agccactaca tctgtttttga gtaa                                          924
```

<210> 3606
<211> 1176
<212> DNA
<213> B.fragilis

<400> 3606
```
ataaaaaaca caatgaatca aacagtcaac aaacgcctac tcgctcttga tgtattgcga     60
ggcattacta tcgcaggtat gattatggtc aacaaccccg gcagctggag ttatgtatat    120
gctcccttg ggcatgcggc atggatcggc ttaaccccga ccgatctggt atttcctttc     180
tttatgttta tcatgggtat ctctacctac atctcattaa gaaagtataa ctttgagttc    240
agccactcgg ccgctttgaa aatccttaaa agaaccatcg taatctttgc cattggtttg    300
ggaatcgcat ggttctccat gttttgccgt acctggaatt cactctccgg tgaagatatt    360
tcattcttct cccgtctgta tgagtcggtc tggactttcg gccacatccg cattctgggt    420
gtcatgcagc gattggcgct ttgctacggt gcaacagcca tcatcgcttt aattatgaag    480
cacaaatata tcccctatct gattgccatc ctgttgatcg gctatttcat catcctgatc    540
aacggaaacg gattcgaata caacagcagt aacatcctat caatagtaga ccgtaccgta    600
ttgggtgaag cacatatgta caaggataat ggcattgatc cggaaggtct gttaagtacc    660
atcccttcta tcgcacacgt actgataggt ttctgtgtgg gtaaactcct gatggaagta    720
aaagatatcc atgaaaagat agagcgtctg ttcctcattg gcactattct cactttcgcc    780
ggattcctgc ttagctacgg ttgtcccatc agcaagaaga tatggtcacc tactttcgct    840
atcgtcacct gtgggttggc atccagtttc ctggcattac ttgtatggat catcgatgtg    900
agaggctata cacgctggag ccgtttcttc gaatcattcg gtgtcaaccc cttatttatt    960
tatgtgatgg gagccgttct ctccattctc ctgggcagca tactgatacc ttatgacgga   1020
ggtagcatca gcctacacgg attcgtgtac aacgcaattc ttcaacccgt gcttggagac   1080
tatcccggtt ctctggcatt cgcaatcttg ttcgtagggt tgaactggtg tatcggatat   1140
attctgtata agaaaaaaat atatataaaa atatga                             1176
```

<210> 3607
<211> 714
<212> DNA
<213> B.fragilis

<400> 3607

```
cgaatattaa ccactaaaaa cagaattgat atgaaaaaga gtttgttaat cagtgttttc   60
gcaacactcg caatgatgat ttctttaaat gcacttgcac aagaaaaagc gacaggtaag   120
gcttataaag ctattcagaa agatgaaaaa gtaatcaaca aagatttgca gaaaaaagcc   180
attaaagaag cacgcaaaca agcgaaggaa ctgacgaaag aaggattcaa gactccggta   240
ggaaagttac cgttggacaa acaactggag aattcatggg aaaaacagat ggaaattgat   300
atgaatggca atccatactg gtatattgcc acatcaagag tgattggtgg aaatcagtcg   360
gctgcagcta tgcaggctac caacacggcc aagattgata tcgccggaca ggttcagaca   420
aaggttacac agttgatcga atcgaaagta gccaatgacg atatggggca ggaggaagct   480
gccagtctgt cgagcgcagt agctgccggt aagagtatta tcagtggaac gctgggacgt   540
actattcctt tggttgaagt atatagaacg ttgcctaaca aaaatgtaga ggtaatggta   600
accatcggtt atagcctgga agctgcaaac aaagtagctg tcaaagcact tagcgaagaa   660
ttggctaaaa aatcaccgga attggctaag gaactggata aactcgctca gtaa          714
```

```
<210> 3608
<211> 1200
<212> DNA
<213> B.fragilis
```

```
<400> 3608
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gagatgctgg cacaaaagat gcgtgcctgt agaacgaaac tggaatttca gaaaaccttt   240
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tatgtggaaa agcagcttga aaagatagag attcccaaca aagatatttc tttcttgcgt   1140
gaaaagctgt tgttgatgta tgccaatccg ttgaccaact atttggccgc tcgtcaatga   1200
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<210> 3609
<211> 888
<212> DNA
<213> B.fragilis
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tggtactctt tctttttacc tttggcaggt atcataacgt atagccgctg gcgatataaa   360
tggattttga gtttcagttt tattctttcg ctggtgttcg tctgtatcaa tctgtttaag   420
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gttattgttt atatgtttgc ttacgctatg ttgggagcgg cggctgtcat ggctgtttat   540
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gtcaatgtgg gactggcatt tatgacgctg ggaatgttgt ttggtgcatt gtgggcaaaa   660
gaagcttggg ggcattattg gagttgggat cccaaagaaa cgtgggcggc tgctacgtgg   720
ctcggttacc tttgctatat acattttcgg atgaaccgga ggcaaaaagt gcgtacggcg   780
```

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cttgtcggac ttctcatttg cttcgtatta ctgcagatgt gctggtatgg cattaattat    840
ctgccatcgg cacaggggac cagcgtacat acgtataatc tgaattga                 888
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<210> 3610
<211> 216
<212> DNA
<213> B.fragilis

<400> 3610
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agggtcgttt ggaagaagtt tgacataggt atggtgaaag cgattcctgc cagtccggca    120
cctactaata gctgcatgct gactatccac caacgtttgg tttttaataa gtcgacaaat    180
ggactccaga aaggtttgat aacccatggt aaatag                              216
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<210> 3611
<211> 792
<212> DNA
<213> B.fragilis

<400> 3611
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aaccatgcac cggccagtga gcctgtttct gtagcctcta ctccggagac agacgaaata    180
gaccaactgt tcgatgatat gcagctggac gggattgtca gctatacagc tttccgacag    240
gcagtgaccg gctatcggaa aatcgagcag aaaagcaagt ccatcatgac cctgatcgat    300
ttttcaaaac catctaccga gaagcgcctt tacgtgcttg atatgaaaaa caaaaagttg    360
ctatatactt ccgtcgtatc acacggcaaa aatagcggag gaaactatgc aacctcattc    420
tccaataaaa acggttcgta caaaagttcg cttggctttt acctgaccga aaacacttat    480
cagggacgca acggttactc cctggtgctg aacgggctgg aaaaaggaat taacgaccaa    540
gccaaacaac gcgccatcgt gatgcatggt gccgcatatg ccaatcccaa catcaccgct    600
tctgccggac gcttgggacg aagcctcgga tgccccgcct tgccgcaagc actcgccaaa    660
ccgattatcg acacaatcaa aaaaggtagt gtgctcttta tctacgccaa caacaaggac    720
tatctggcca acagcacctt cctgtctcca cggcaaacgg agtatctttc atgggcgcag    780
cctgccaatt ga                                                        792
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<210> 3612
<211> 930
<212> DNA
<213> B.fragilis

<400> 3612
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cagggaaatt tcgagcagtt gtggaaaatc atcgacgagc aatactgttt tctcgactat    180
aaacagatag actgggacga gattcacacc cggtatcaaa agcttatcac cccgaatatg    240
ggcagcgaag gactatttga agtattgagc gaaatgctct acgaactaca ggacggacat    300
gtcaatctgg cctcggctca caacgtgtct tattacgacg cctggtatca ggactatccc    360
cgcaacttcc gtgcagacct gctggaagat tcctatctgg gacgcgccag tacggattat    420
cgcacggcag caggccttaa atacaagata ctgaaagata atatcggcta catacggtac    480
gaaagtttcg ccgacccggt cggtaacggt aatctggacg aagtgctctc ctatctgtcg    540
gtatgtaacg gactgattat cgacgtgcgc gacaatggcg gcggaaatgc aaccaactcc    600
gcccgtatcg cttcccgttt caccaatgaa aagatattga cgggatacat ctcccataag    660
acaggaaccg gacacaacga cttctccaag ccttatgcca tctatctgga gcctgccaac    720
ggagtacgct ggcaaaagaa ggtagtagtg ttaaccaatc gccgctcttt cagtgcgacc    780
aatgactttg tcaaccacat gcgttgtctg gccaatgtca ccaccatcgg agaccaaaac    840
cggagaggtt cgggtatgcc ttttactttc gaactgccca acggatggag cgtcccttttt    900
tttcccggcc ccattttgat gcggagatga                                     930
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<210> 3613

<211> 240
<212> DNA
<213> B.fragilis

<400> 3613
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attttatata atttagattt atatttgtat attcacatta tgacgcttct ctgttttata   180
aaaatgatct gtgaatacat ttataagcga tggttcttaa ggtttagaaa cattttttag   240

<210> 3614
<211> 1113
<212> DNA
<213> B.fragilis

<400> 3614
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tgcggaaaag gcatattcat tctaacaaag acaattatga agaaatttac ttgcgtacaa   180
gacatcggcg acctgaaatc agcccttgcc gaatcattcg agatcaagaa agaccggttc   240
aaatatgtag aactgggacg taataaaact ctattgatga tcttctttaa ctccagcctc   300
cgcacccgtc tcagcaccca gaaagctgct ctcaacctgg gtatgaacgt aattgtactg   360
gacatcaatc aaggggcctg gaaactggaa accgaacgcg gcgtcatcat ggacggtgac   420
aaaccggaac atctgctgga agccatcccg gtgatgggat gttattgtga catcatcggt   480
gtacgttcgt ttgcccgctt cgaaaaccgt gagtatgact ataatgaagt gatcatcaat   540
cagttcatac aacattccgg acgcccggtg ttctctatgg aagcagctac ccgtcatccg   600
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gtagtaatga cctgggctcc ccatccgcgg ccattgccac aggcagtgcc caactcgttt   720
gccgaatgga tgaatgccac agactatgag tttgtcatca cccaccccga aggttacgaa   780
ctcgatccga agtttgtagg aaacgcacgg gtagaatatg atcagatgaa agctttcgaa   840
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attctgagta cagaccgtaa ttggaccgta ggcgaccgtc agatggccgt caccaataat   960
gcctacttca tgcactgcct ccctgtaaga cggaatatga ttgtgacgga tgatgttatc   1020
gagagtccgc aatccattgt catcccggaa gccgcaaacc gtgaaatctc ggcgacagtg   1080
gtactgaaaa gactgctgga aaatctacca taa   1113

<210> 3615
<211> 627
<212> DNA
<213> B.fragilis

<400> 3615
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gcttgtacaa gtaaatcaaa gaaagatatg gaatatgtaa aaggctggca cggcaaaaaa   180
ataagtttac cttcggaaag tgattttttg ttatttggga gagactcagt ggtctatgac   240
tatagctctt ttccatataa gattgttctt gtaattggaa aagaacaatg tataagttgt   300
aagtttgatg tggctaaatg gcaagaattg attcaacaag tagattctat cacatctttt   360
aaagttggtt ttgtttttgt gttagagcct atttatcagc atgatgtcta cgtgatgttg   420
agatctcatc aatttatgac tccagtattt attgatacta ataacacatt tagaggtatg   480
aataaaatat cagataatga ttctcatgtt tggttgttgg attctaacaa taggattatt   540
tatattggag atccaactgt taatcaaaag ataaataaag aatatatgga gttagtgaga   600
actaactact tgtttaacga taaataa   627

<210> 3616
<211> 420
<212> DNA
<213> B.fragilis

<400> 3616

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attaccctat tcttattcat tagtgttggc tatataaatg cagaaacaat ggcctcaaga   120
aagaaaatta aaatgaaagt agaaactcag caccatcaac gttctctgcc cccaccttgt   180
cccgcagaag cttttatctg cggaaatacg gttgatctta ttttcagaga aacaaataaa   240
actgcagttg tcacaattat gaatttagat acgggagaag ccattcatta caatgtttca   300
acaaacgatt gtagtatctc tatcgattta ggcaacaatc aaagtgaatc aaactataat   360
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<210> 3617
<211> 894
<212> DNA
<213> B.fragilis

<400> 3617

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gaagaagatt ccagaattgt attcaatagt gcaaaagagt tttataacac ccttgataca   180
ctatcttaca tgacttatga agaacaaaca gaatggattc gtgcctcggg tattaaatat   240
ccgctatata aagaccttga attttgcgaa gatgaaatca tgacagaaat gcctagagca   300
tttcaagcac tattcaacca taaaatggaa atgcaaataa atgataccgt aattgcattt   360
gaaaaaggaa atatgtacgt aaaatcaatt aaggagaaaa ttctacccgt tcctgttcta   420
tatgggcaag taggagttaa ccaagaggaa tcagaagtaa caacaagaac tgtatatgaa   480
acaaaatatg gaaagattgg aacatcatat caatatgaat tcaagattcc agaaggtaaa   540
tccaaataca aatatgtaca tgaacttaaa tccgttatta ttaaagagaa cctcccacca   600
tataaatcat ggagtaattt atttttagtt ttaaaattag aatggaaagg taaaaagaaa   660
tggaaagttg cagaaaaaga agaaagaaat atctcaatag atttaaatgt gtgtaaacgc   720
aatttagcaa aagtaaagta taaccaagaa atccggatag atgttcaaaa tatggattct   780
aaatcacact ctataaatat agaaggttat atcatccatg aagtagttgg aataccaagt   840
accaaaatgt ttaatggatg gagttatcca ttagtggagt ggcaaccccg ataa        894
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<210> 3618
<211> 768
<212> DNA
<213> B.fragilis

<400> 3618

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ttgtggcaga tatctttgtt taaggatatg gataacagtt tgcaacgtcg gctgccacaa   180
gagctggaac tttcggtgta cgaggttgcc agaaaagaga tcgtattgaa gcaggatacc   240
tattgcaatc atttatatgt gctactgaaa ggggaactgg aggttaatat tgtcgatgtg   300
gcgggaaacc tggtgaaagt agaagatatt cgtgctcccc gtgcttttgc cactcctcat   360
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ttgatggcta cccgtacttc cgttttttaaa ttgattagtt ctgtacccga tttgttgcat   480
cgcttcttgt gtgtgacggg taattgcaac aaatgtacgg ttacccgtct gcgtatcctg   540
tcttataaga tgctgcgcag ccgtttggtc tattatttta tggagcataa gatttctccg   600
gatacagcct tgctggagca caatcaggtt caattggcag aatatctggg agtgacgcgt   660
ccggcactct cgaaggagat aaataagatg atgaaagagg ggctgatttc gatcaataag   720
aaagtagtga cgttggaaga tatggcggca ctcaaagaat atatctga              768
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<210> 3619
<211> 1371
<212> DNA
<213> B.fragilis

<400> 3619

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tttctatttta ccggatattt aaaacatact gagaatatga catatagaag aagtatatta   120
```

```
aagttattac tcactttttt cgtctttatg acctccactc tcctctcacg aggagctgaa      180
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aacttcaaat gccttgaagg aaagcgcgta ggattaatta ccaatccgac cggcgttgac      300
aatcatttaa tatccaccat tgacattctg cacgaagcac ccaatgtcaa cttggtagcc      360
ctttatggcc ccgaacatgg tgtacggggt gatgtacacg ccggtgataa agtagataac      420
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gtggtagaag atggatatat atcttttgtc agccaattta aaattccgta cctttacggg      720
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atacgcgagc gcttcagtca acgcaaccgt tgggaagatg tccgcgatta ctggtacaaa     1320
gatgtcgacg actttcgacg gctatcgcaa aagtactatt tatataaata a             1371
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<210> 3620
<211> 1332
<212> DNA
<213> B.fragilis

<400> 3620
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attgccctga aaggcgaatc attcaatgga aacgcttttg cagctcaagc attaaaagac      180
ggctgtgcat acgccatcgt agatgaagcc gaatatgctc cggaaaacaa cagacatatc      240
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cctccttatc acacctatgc caatgcacag gaagtgataa aggaactgca aacggaaaag     1260
cctaaagact acaccatcct gatcaaagga tcgaatggta tcaaactgag cacggttgtt     1320
gaattttat aa                                                          1332
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<210> 3621
<211> 864
<212> DNA
<213> B.fragilis

<400> 3621
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gaatacgatt acatctatct gggcgacaat gcacggactc cttatgggac ccgttccttt      180
gaaatcgtat acgaattcac cttacaggct gtcaacaaat tgtttgagat gggctgtcat      240
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tgtatcggca gtatgaccca aacgcgccat gtaggaatat tggctacagc cggtaccatc      420
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gaagcttgtc ccatgtgggt tccactggtt gaaaacaatg aagccaacgg cgaaggagcc·     540
gacttcttta ttcgtaaata catcgacaac ctacttgcca aagaccggca gatagacacc      600
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<210> 3622
<211> 1380
<212> DNA
<213> B.fragilis

<400> 3622

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ggaaatcatg gaggagctgc ttttattctt atttatctgg gatgcatcct cctactcgga      180
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gcgggcaaag gcatagagtt tctgctaaaa ccagatttca gtaaagtaga tggcaatgta      660
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caacaggctt tcagcggaat accgatactg gcatatattt tttcagtgat gttctacgta      960
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ggactgggta tgttcgactt gttcgacttc gtaactgcca aactgatgtt gccattgggc     1200
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atcacgaata acggtaccct gaaagttcct acctataaac tgattatctt tattctgaaa     1320
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```

<210> 3623
<211> 3366
<212> DNA
<213> B.fragilis

<400> 3623

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aaaacaaaac aattaaatca tctatctttt atgaatgaag atcgcaagaa acgaggatta      60
gcgaacagca acctccttat agccatggct attactgcct taattatagg tagcagcaat      120
gcaatggcta atcaaactgc ttccggcagt agttacaagg tgactgaaca aatgcaaata      180
caaaccgtga cgggtgtagt agtagatgca aacggcgaac cgattattgg tgccagtgtc      240
gtagagaaag ggacaaccaa tgggattgta accgacatgg atggcaaatt ttcactaaat      300
gtaaaagtag gtaccactct gcaaatcaca tttgtaggat accaaccgca agatgtgaaa      360
gcaactaaaa gcatgaaagt tgtcctgaaa gaggacaacg aattactaga tgaagtggta      420
gtggtaggtt atggaaccca gaaaaaggca aaccttaccg gagcagtatc cactgtagat      480
```

```
gtcagcaaga ctttggaagc ccgtccacaa tccgatgtgt ccaaagctct gcaaggtgta    540
gtaccgggat tgaccatcac taataccagt ggaaaactaa acagcaaacc aaccatgact    600
atccgtggta ccggaacact gagtaacagt gcaaccagta acccgcttat tgttgtagat    660
ggtgtgccaa tggacgatat ctcatattta aatacacagg atatcgataa tatatctgtt    720
ttgaaagatg cagcctccac ttctatctat ggtacaagag cagcatttgg tgttatatta    780
gtaacaacaa aatctgcaaa gaaaacagat aaagtcacaa tcaattatac caataatttc    840
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gacaatttca tagcaaaagc tgaagcttgg aaacaaagac acggaggtaa aaaagccgga   1020
tatcgcgaaa tgattccggg tgatgatttt gatttgggag aagatggcag cgcactatat   1080
tatgcagatt gggatgtggt cggaattatg tttcgagact ggaaacccgc acaaagtcac   1140
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aaggcataca ccacccctaa tacccgccgt aatacttata cgtatatgtg gcgctgggga   1380
agtttcttcg gtccttatgg tacttatcag ggaatcgata tgaaaaatga tatcgcatac   1440
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aatactccta ctaccgcagc aggagctaat ggagatacat gggtatatca gaattcagtc   1680
cgcgacaatt cttacgcatt aaatgtattc gctaattacg aactaacagt tgcaaaagat   1740
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caaactgtag gtggaacgca taacgaatgg ggtactgccg gatggttcgg acgcatcaac   1920
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ttcccatcaa gtgatcgctg ggcattcttc ccttccggct ctgtaggcta tcgtatcagt   2040
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gtaaaagatc acggagactt aaaggtgatt ggtaatacca ctccccgtta ccagtacggc   2820
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ccacgcatgt ggccgggtaa tgcaggaaaa ggtacagtca gcgtacttga tttaggtaat   3060
cataacttct atccgcaaag taaataccttg gtaaacatgg cctatctacg tttcaaaaat   3120
ttgactatag gatatacctt accaaaagat tggacacgta aagtttacat ggataaagta   3180
cgcgtttatt tcagtgctaa taatatttgc gaacttataa ataagagtaa tgctcctgta   3240
gacccggaag taaatacttc tgaagctata gccaatggtg gaagcagtga ttacggcaat   3300
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ttctaa                                                              3366
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<210> 3624
<211> 528
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (388),(394),(426),(439)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3624

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cctatgaatg tgtgcgtggg agtattgtat cttgttatct tgttactgat ctacgccttt     180
tcgcaaaaga gttatttcat ccggtggatg ggaagctgcc aggctgccgt ttcatctatg     240
gtatcagtcg cgatgctgac tgtagtgatg gggctgattc gccaagtgaa gtccgatgta     300
cctctgttag gtgctgagag ctggctgggg ttttcgcaga tgttgtcggc atgttcgttt     360
gtgctgttgt tcctttggat gatcactntg ttgngactga ccacaattcg gaggatacac     420
catttncgct tgtgtgatnt ccttttgta ttgaatcact tggggactgt tccttgcact     480
gacccgtgct atctttgggt aatgccgaaa tggaacgttt gcggatga                  528
```

<210> 3625
<211> 2682
<212> DNA
<213> B.fragilis

<400> 3625

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acaggaatgt accagaattg gtttctggac tatgcttcat acgttatcct cgagcgagcc     180
gtgccccaca tcaatgacgg actgaaaccg gtgcaacgcc gcatcctgca ctccatgaaa     240
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caccctcatg gcgatgcatc catcggtgac gcattggtac agctggggca gaaagacctg     360
ttggttgact gccagggaaa ctggggtaat atccttaccg gtgacggtgc tgctgctcct     420
cgttatattg aagcacgctt gtcgaagttt gcactcgatg tagtattcaa ccccaaaacc     480
accgaatgga agttgtcgta cgacggacgc aacaaggagc ctattacctt accggtaaag     540
ttcccgcttt tgctggcgca aggtgtagag ggtatcgccg taggactttc atccaagata     600
ctgccacaca acttcaacga actgtgcgac gcatccatca gctatctgcg taacgaggaa     660
ttcaaactat atcccgactt ccagaccgga ggttctattg acgtatcgaa atacaacgac     720
ggcgaacgcg gtggagcagt caagatacgg tctaagatca ataaagtaga caacaagacg     780
ctggctatca ccgaaatccc ttatggcaga accacgactt cggtcatcga ctccatcctg     840
aaagctgtcg ataaaggaaa gataaaaata cgcaaggtag acgacaatac ggcggccaac     900
gtcgagattc tggtccacct ggcaccgggc acctcgtccg ataagacaat cgatgctctt     960
tatgcattta cggactgcga ggtgagcatc tcgcccaact gctgcgtcat tgacgaccag    1020
aaaccgcact tcctcaccat cagccatgtg ttgagaaaat cggccgacaa tacattgtcc    1080
ctgctccgcc aggaactgga aatcaagaaa gacgaactac aggaaaacct gcatttcgcc    1140
tcacttgaaa agatattcat cgaagaacgc atttataaag ataaagagtt cgaacaatcc    1200
aaagacatgg atgccgcctg tgaacatatc gaccgacggt tgactccttt ctattcacaa    1260
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atcctgaagt tcaactccga caaagctgaa gaggcgattg cccgcatgaa cgaagatatt    1380
gccgagatca acaaccactt ggccaatatc gtggaatata ccatccaatg gtaccggatg    1440
ctgaaagaga aatatggcaa aaacttccct cgtcgcacag agttacgcaa cttcgacacc    1500
atcgaagccg ccaaggtagt ggaagccaac gaaaagctct atatcaaccg tgaagaaggt    1560
ttcatcggaa cgtccttaaa gaaggacgaa ttcgtggcat gctgttcgga tatcgacgat    1620
gtgattatat tctatcgcga cggacgttac atggtgactc cggtagccga caagaagttt    1680
gtgggcaaaa acgtgattta cgtcaatgtc tttaagaaga atgacaaacg taccatctac    1740
aacgtagcct accgtgacgg cgcagaggga acacattata tcaaacggtt tgcagtcact    1800
tccatcgtac gtgatcgtga atacgacgtg actcaaggca agcccgattc acgcatttcc    1860
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ccgcgtgtac gacgcatcat cttcgaacgt gactttagtg aagtgaccat tcgcagccgg    1980
caaagccagg gcgtcatcct gacacgcctg ccggtacaca aaattgtttt gaaacaacgg    2040
ggtggttcca cactgggcgg acgtaaagta tggtttgacc gtgacgtgct ccgcctcaac    2100
tacgacggac gaggcgaata tctgggtgaa ttccagagcg acgacaacat tctggttgta    2160
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gtaagcatcg tcgagaagtt cgatcccaat aagatatgga cagttgccct ttacgatgcc    2280
gaccagcaga attatccgta cctgaaacgt ttctgctttg aagctactac acgcaaacag    2340
aattacctgg gcgagaacaa acacaatcgc ttgatcctga tgacagacga gtattatcca    2400
agattggaaa tcatcttcgg aggccatgac agtttccgtg accctgttgt cgtcgacgcc    2460
```

```
gaagagttca ttgccgtcaa aggttttaaa gcgaaaggga aacgcctcac gacttatacg    2520
gtagaaacca tcaatgaact ggagccaacc cgcttccccg atccgccaca aaacaacgaa    2580
gaagatgaca ccggggaaga gccggaaaat ctggacccgg acagtgataa aacagaaaac    2640
gacatactcg acgaaatgac cggacagatg aaactgtttt ag                       2682
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<210> 3626
<211> 336
<212> DNA
<213> B.fragilis

<400> 3626

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cccttcggta aacacacgtt gtacgagatg attgtcttca accaatgccc attccgttct      60
tgtagaacca ctttccgcaa taagtttcat ttcgcagcct ttttgatttg gatacaaata     120
tataatattt tttgtaattt gatttgtttt gatcggaaag ttttttcata tcaaataaat     180
gcattcggaa atgtagttcc ctctttgaat gcttgtgcgg aacaatcttt tgttttttatc    240
cttgtgtcgg acctgatcaa atcattctta tttaatagat tgtatgaagt ttataaaaag     300
aaaatctcag ccggattgac tacctggctg agatga                              336
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<210> 3627
<211> 2520
<212> DNA
<213> B.fragilis

<400> 3627

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gattatgttc ttatcggact gtccggactc tctgtaggac aaaccattac tgtaccggga     120
gatgaaatca caggtgcaat caaacgctac tggcgtcatg gtctgttctc taatgtatcg     180
attaccgctg aaaaaataga aggtaataaa atatggttaa agatcacttt ggcccaacgc     240
ccacgtattt ccgatatacg ctatcacggt gtgaaaaagt cggaacgtga agacctgcaa     300
accaaactgg gcatgataaa gggtagtcag atcactccga acctggtaga ccgtgcgaaa     360
gttttaagta aacgctattt cgacgataag ggatttaaga atgctgaaat cactatcacc     420
caaagagatg atcctgccaa tgaaaatcag gtattagtcg atatcgacat cgataagaaa     480
gaaaaggtaa aagtacatgc catcactttt gccggcaacc acgccatcaa gacatctaag     540
ctgaaacgcg tgatgaagaa gacaaacgaa aaaggaaaac tgctgaactt attccgcacc     600
aagaagtttg tcaacgagaa atatgaagag gacaaacagt tgattattga taagtataac     660
gaattgggtt accgcgatgc acgcattgtg aaagacagtg tatccaaatt tgacgataag     720
accgtagacg tattcatcga actggaagaa ggcgataaat attacctccg caacgttaca     780
tgggtaggta atacgcttta cccttcagag caattgaact acatgctccg catgaagaaa     840
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atagataatg actccattga cttggaaatg agaattttg aaggccggca agccagtatc     1020
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cgtacccgtc cgggtgagtt gttcagccgc gaggacctga tgcgttctat gcgtgaaatc     1140
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aacggaacgg tagatatcgc ttacgatctt gtatcgaaag caaatgacca ggtagagttc     1260
tctgccggtt ggggacaaac aggtgttatc ggtaagttaa gtctgaagtt tacgaacttc     1320
tctttggcga acctgttgca tccgggagaa aattatcgcg gtatcctgcc tcaaggcgac     1380
ggacagacac tgaccatcag tggacaaacc aatgcacaat actatcaaca gtatagcatt     1440
tcgttctttg atccctggtt cggaggtaaa cgcccgaatt cattctctct gtcggcattc     1500
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gactacagca agtacaacga gtacaaccag aacgatatga acaagatgca taaatgggta     1980
gaataccaca agtggaaatt caaagcaaaa acatacatcc cattgctgaa cccgactgta     2040
gtgaaaaaga ctccggtatt aatgacacgt gttgaattcg gtatattggg tcactacaac     2100
```

```
aaatataaga aatcaccgtt cggtacattc gatgtcggtg gtgacggtat gaccggatat   2160
tcaagctatg caaccgagag tgtcgccctc cgtggttatg aaaacagttc tttaactccg   2220
taccgcggac aagaaggtta tgcttatacc cgtatcggat ttgaattaag atatccgcta   2280
atgctggaaa caagtaccaa tatttatgcg ttaacattcc tggaagccgg taatgcttgg   2340
cacgatgtga aaaacttcaa tccgttcgac ctgaaacgtt cggcaggtgt gggtgtccgc   2400
atcttccttc cgatgattgg tatgatgggt atcgattggg catacggttt cgacaaagta   2460
cttggcgaca agagcgcagg tggaagcaga ttccatttcg tattgggcca ggaattctaa   2520
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<210> 3628
<211> 894
<212> DNA
<213> B.fragilis

<400> 3628
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caggctaccc gctatgtgac acgcgccacc atgtacggtg tgggatacac caatgtattc   180
gacacctacc tttctccgca ggaatacaag ggaatcgagt tccgcatcag ccgtgagacc   240
atgcgtatga caactctggg tgacggcaat gtctcggttc agaacttttt tcaggcaaac   300
ctggcataca ctcacaaccg ggtagataac aacaacacct ttgccggact ggtgaactgg   360
aactacggat tgcattatca gttccgcatt acagacaact ttaagttgct tgccggagga   420
atgggagact tcaacggcgg ttttgtctac aacttacgta atacgaacaa tccggcctcg   480
gcacgcgcct acatcaacct cgacgcttcg ggaatggcca tctggcatac caagataaaa   540
aattatccgc tggctttgcg ctatcaggtc aatctgccgg taataggggt catgttctcc   600
ccccattacg ggcagtccta ttatgagata ttcacactcg gacatgccag cggagtggtc   660
cgcttcacct ccctgcacaa tcagcccgca ttgcggcaga tgctatcggt cgacttcccg   720
atcagatata ccaaaatgcg cctcagctat ttgtgcgatc ttcagcaatc caaactgaac   780
ggaattaaga cacacacgta ttcgcaagta ttcatggtgg gatttgtaca cgacctgttc   840
cgcatccgca acaagaacgg cactcccctg ccaccggctg tcagagccta ttaa   894
```

<210> 3629
<211> 2109
<212> DNA
<213> B.fragilis

<400> 3629
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ttggacgcca agataaagaa aaataaatgt cctaatgcta tcagcacact aaaaataaag   60
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atagcactcc tgctggtttt gttttgttcg cgattcgaag cccaagccga agacctgttc   180
gctaaaacgg acagtactct tcaacaatac ttgatcagat gtaaggcaca aatcaaagat   240
ccggactttc tgcaaacaaa tgatactctt acgcgcatgg ctcaagaaaa aaatgacaaa   300
cggatgcagg tgattgccgt ggccctgaaa ctggattatt actactatca aaacaatccg   360
gacagtatcc ttgtcatggt agaccgcgtg aagaaaatca gccgaaggaa taatgaactg   420
aaatatttct actttgcatg gggaagccga ttgattatct attatatcaa acaacaccaa   480
accaacactg ccatttacga agcccggaaa atgcttcagt cagcggaggc tgataatttc   540
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gaagatatca atctgcccac tcaatatgct tcactcgccc aatgcgctct tgaaatgcac   720
cgccccgacg aagcgctgaa agcactggaa aaaggatcga aatgtaccag gagttcatat   780
cagatattca ctgtacagaa agcctatatt ctatattatc tggaaacaaa agaatacgaa   840
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cgggctgccc aatattatcg ggattatatc ctggcaacag actccatccg aagccaggaa   1140
atacaaaact caaccaacga gttctatacc attatggaag tagaacagct acacaaagaa   1200
aaaaatgaac tactgctgca catgcaggaa gaaaaattgc agaaaatcaa tatcgcactt   1260
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aataaaaaac tgaagagatc ggaagccaaa gtgatacagc agaacaaaga attggtagaa   1380
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```
aacggagaag aattacgcaa agccaaagaa caggcggaaa acgcaagccg gatgaaaaca      1440
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tctcaggtac tgagcaacta tttcaaagaa gaagataatg atgaaatcag agagttcgcc      1560
tcgatcatcg aaatcagcag cagcaattta ctgcggctga tcaatgacgt actcgacatc      1620
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tgcctgctca gcatcgaacg aacccggaac agtataaaga aagaggtatc actccgtttc      1740
gaaccgtcat gcggaccact tatgatattg accaacccgg aaagggtagc gcagatactg      1800
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accatctcgc ccacagaaaa acagattgta tataccgtta ccgatacagg gaaaggtatc      1920
ccagtggagc aacaagagta tgtattcgaa cgttttgcca agctgaacga ttttttcgcaa     1980
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```

<210> 3630
<211> 270
<212> DNA
<213> B.fragilis

<400> 3630
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gtaatcaaca aattacgtat cactacagga ggcattgacg gaacttatgc cgatgtacgc        60
accatcttac gagaagcact gataggacgt gccacacaaa tagccctgat tcataatcac       120
ccatcgggcc atgcgaagcc cagccaagag gacaaacgcc tgacgggcgc catacaaaaa       180
gcgtcgcaaa cgatgaacat caccttggtg gatcatgtca ttgtctgcga cggttgcttt       240
tatagttttg ctgacgaagg gcttatctga                                       270
```

<210> 3631
<211> 426
<212> DNA
<213> B.fragilis

<400> 3631
```
atcatgaaca aacagaaact aaacatcaag cagtggtcca aagccgatcg gccacgcgaa        60
aaaatgatgg caaaaggttc cgaagcattg agcgacgctg aactattggg catcctgata       120
ggttcgggca atacggaaga gagtgccgtt gaactgatga gaagaatact tgccacttgc       180
gacaacaacc tgaatgaact ggggaaatgg gaagtacgga acttttcttc attcaaaggc       240
atgggaccgg ccaaaagcct caccatcatg gccgctctgg aactaggcaa gcggcgtaaa       300
ctgcaggaaa gcaaagaacg ggaacagatc agatgttcag aggacatcta caagctgttc       360
catccactga tgtgtgatct gccgcaagaa gagttctgga ttctgcttct gaaccaagca       420
tgttaa                                                                 426
```

<210> 3632
<211> 555
<212> DNA
<213> B.fragilis

<400> 3632
```
cgaatgaaca aaaaaatcta tttattgccg ttgctgttac tggctcttat ctttgtttcc        60
tgtgaggaga cgaaagaagc tacgaagttt gataactggc gggcacgtaa cgaaggatat       120
atcgattctt tgaagacggt atttgatgaa aaaaccgatc cggaactgaa agcttttgag       180
ccggagataa atccgaagtt acggatttat tataaaaaga agatctcgaa tgatacaggt       240
gctattcccc tttatacaga ttccgtgaat gtgtttttatc gtggaagttt tattttttggc      300
gaaacatttg accagaactt tacgggagct gatccggggc cttttgattc acctactaaa       360
tttgttatcc aaacatttat tacggttggt ggtgtctccg gttgggctga gatattgcaa       420
cgtatgcgtg tcggagaaag atggcttgtt tatattccgt gggagttggc ttacggagca       480
agtggaactg acgatattcc aggctattca acgctgatct ttgatatgca attggaagaa       540
atattggatg aataa                                                       555
```

<210> 3633

<211> 861
<212> DNA
<213> B.fragilis

<400> 3633
```
ataaagaaca aaaacatgaa tagtaatata gaaaaatcag ataaaccctc cttcatcaaa      60
atctctgagc agccctcact ttacgacgat cttgaaaaga agtcgatccg cgaaatactg     120
gaagacatca ataaggaaga ccagaaagta gctattgccg tacagaaagc aattcctcaa     180
atagagaaac tagtcacaca aatagttccc cgaatgaaac agggggggacg cattttctat     240
atgggagccg gcaccagcgg acgcctcgga gtactcgacg cttcagaaat cccacctacc     300
ttcggtatgc cccccacatt aattattggc ctgatagcag gcggtgatac tgctttacgc     360
aatccggtag aaaacgccga agataatacg atccggggct gggaagaact gacagaacat     420
aacatcaatg acaaagatac ggttatcggt attgcagcct caggcaccac cccttacgta     480
atcggagcta tgcatgcagc ccgcgagcat ggtatcctga ccggctgcat caccagtaac     540
ccgaactctc caatggcagc agaggccgat atccccatcg aaatgatcgt gggtcccgaa     600
tatgtaacgg gtagttcacg tatgaaatcg ggaacgggac aaaagatgat cctgaatatg     660
atcacaacct cggtaatgat tcaattagga cgcgtgaaag gtaacaaaat ggtcaacatg     720
caactcagca accggaagct cgtagaccgt ggtactcgta tgattattga agaactcgga     780
cttgaatata ataaagcaaa agccttgttg ctgatgcacg gttccgtgaa aaaagcaata     840
gatgcttata aagccggata a                                              861
```

<210> 3634
<211> 798
<212> DNA
<213> B.fragilis

<400> 3634
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atgaacgtaa acaggctatt aggaatttta gctatacttt tactgactgc cgccagcgct      60
ctttatgcac agaaacccgt gaaggtgaaa ggcgtacagg ggcgttggca agttagcgat     120
gacatcacat tgaagcaggc ggaagagagg gctttcatgg aagcgaagaa agctgctctg     180
cagaaagcgg gtgtgatgga aaatgtgtgg tcggtatttg gccagatcac ccaggaagac     240
ggccaggagc ttcatgaagc ttattcgcaa atgaatgtgc tggctatcgg gggaatggtg     300
aatgttacta ataaaaaagt tgaagaggtt tgggacacgg atacccgtag cctgtataag     360
gtagtgacca ttgacgccga ggttcggaaa gaggacaagt cggatagttc gtatgccctt     420
gaggtgaaag gagtggaaac actctatcgt gaaggggatg tgtttcactg taagctgact     480
atacatggta cggattcata cttgaagttt ttctggttcg acagtaatgg gggggctctg     540
ctttatccta acagttatga accgaataca ttgttgaaag ccggtaaaga atatgcgatt     600
cctttagta atgctgtcga ctatcgtatg gagaagcagc atggtaagga aagcgagaag     660
ataaatatga tgatggtggc taccaaggaa gatatcccat ttaccaaaga agtcacttat     720
cagaatgtat tggagtgggt gtactctatc ccggcggttc agcgttgtgc tttttatgat     780
atggtattga taaaataa                                                  798
```

<210> 3635
<211> 231
<212> DNA
<213> B.fragilis

<400> 3635
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agtatgaaaa acgcaaaaat tactattgga cttatcgggc tattgctaat aggtcttgtt      60
tctgtgagaa aagaaggaaa ggtacaagaa gccggtttgc tattgcaaaa tgtggaggct     120
ttggctacag gagagtcgtt ccccgatgga gatatagcct gtatcggtga cggatctgtg     180
gactgtccgt tcacatatct gaaagttgaa gtagtatacc gtgaagaata a             231
```

<210> 3636
<211> 1215
<212> DNA
<213> B.fragilis

<400> 3636

```
ttaaatcgaa aatcagatat gaaagtttta gtattgaact gtggtagttc atctatcaaa      60
tacaagctgt tcgatatgga cagcaaagaa gtgattgccc agggtggtat cgaaaagatc     120
ggtttgaaag attcattcct gaaattgact ttgccgaatg gtgaaaagaa aattttggag     180
aaggatatcc ccgaacatac cgtaggtgtg gaattcatct tgaatacact ggtaagtccc     240
gaatatggtg ctatccaatc actcgaagaa atcaatgccg taggtcatcg tatggtgcac     300
ggaggtgaac gcttcagtaa atcagtactg ctgactaagg aagtgcttga ggcttttgct     360
gcctgcaatg atctggcacc tctccacaat cctgctaacc tgaaaggagt tgacgccatt     420
acagctattc tgccgaatgt tccgcaaatc ggtgtattcg atactgcatt ccaccagact     480
atgccggagc atgcatatct gtatgctatt ccttacgaat tgtacaagaa gtatggtgtg     540
cgccgttatg gtttccacgg aacttctcac cgttatgttt ctcagcgcgt atgcgaatac     600
ctgggaatta aaccggaagg tttgaaactg attacttgcc atatcggtaa tggtggttcg     660
attgctgcta tcaaagatgg taagtgtatc gatacttcta tgggactgac accgttggaa     720
ggattgatga tgggtactcg ttccggtgat atcgatgccg gagctgttac attcatcatg     780
gataaagagg gcctgactac tacgggtatc tctaacctgc tgaataagaa aagtggtgta     840
gccggtatga tgaacggctc aagtgatatg cgtgacttgg aagctgccgt tgccaaaggt     900
gatccgcagg ctatcctgac tgaacagatg tacttctatc gcattaagaa atatattggt     960
gcgtatgccg ctgctttggg tggggtcgat gttattctgt tcacaggtgg tgttggtgaa    1020
aatcaggcga cttgccgtgc cggtgtttgt gaaggactgg aattcctggg tgtgaaactc    1080
gatccggaaa agaacaaggt tcgcggtgaa gaggctatta tctcaactga tgattcaaga    1140
gtgaaggtag tagtgatccc gactgatgaa gaattgctga ttgcttctga tacaatggct    1200
atcttggata aataa                                                     1215
```

<210> 3637
<211> 1473
<212> DNA
<213> B.fragilis

<400> 3637

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gcatatatga aatcaacaat caattgcttc atcccttacg cgggagcagt acaagcagaa      60
agaacagttc aaggattaca agcaacaggt ttggtgaaaa aaatctacct tcttgtcacc     120
tcacccagct tcgatccact accaggatgc gaactacttt atgtagacaa gcttaccaac     180
agcgcctcca tgtacgccat tgctacctat tcggatgcaa gctacacatt actttatacc     240
aaatatacat cacttgaact gggactattt gcccttgaac ggatgattca cattgccgaa     300
gattcggctg ccggcatggt atacgccgac cattatcaag tgacagaagg taaacagagt     360
aatgccccgg tcatcgatta ccagttcgga agtctccgtg acgatttcaa cttcggttct     420
gtcctccttt tcaaagcctc agccttgaaa gaagccgcca acgaatgaa atccgactat     480
gactttgccg gattctacga tctgcgcctt aaactttcac agaaatatcc attagtacat     540
atcaatgaat acctttattc ggaagtagaa aacgacaccc gaaaaagtgg tgaaaaaata     600
ttcgactatg tagatcctaa aaatcgtgac cgacagattg agatggaaga ggcatgtacc     660
gaacatctgc aagagatagg cggttatctg aagcctgaat tccagaaaat agaattcaac     720
accggcaact tcccatacga agcttctgtg attattccgg tacgcaaccg tattcgtacc     780
atacgcgatg ccatccgttc tgtactcagc cagaaagcag atttcaaatt caacctgatc     840
attatcgaca atcactctac cgacggtacc accgaagcca ttgatgaatt taaagacgat     900
gaacgcctga tccacttgat tcccgaacgt aatgatttgg gtataggcgg ttgctggaat     960
ctgggagttc accatcctct ttgcggtaaa tttgctgtcc aacttgacag tgacgacgta    1020
tatgcccacg acggtacttt gcaggtcatg gtcaatgcat tttacgaaca aaactgtgct    1080
atggtagtag gcacctatat gatgacaaat tttgatatga acatgatcgc tccgggcatt    1140
attgatcaca aagaatggac accagaaaac gggcgtaaca atgcactacg catcaacggg    1200
ttaggtgctc ctcgtgcatt ctacacacca atactccgtg aattgaaggt acccaatacc    1260
agctatggcg aagattacgc attaggactg aatttctcac gccagtatca gatcggacgc    1320
gtatacgaag tcgtttatct atgccgccgt tgggatgata actcggatgc ctctctcgac    1380
atcgtaaaga tgaatgctca caacctttac aaggaccgca tacgcacttg ggaattacag    1440
gcacgaattg cattaaataa gaaacaaaga tga                                  1473
```

<210> 3638
<211> 702
<212> DNA
<213> B.fragilis

<400> 3638

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actcaaatga attatttaga aaatgaattc ttcctgctgg caatcacttt cgggatttac    60
ttctttgcca agcttttaca aaaaaagaca ggaatactcc tactcaatcc catcttgttg   120
actattgcag tcatcatcat tttccttaaa ctgacaaata tctccttcga aacttacaat   180
catggcggac acttgattga attctggcta aagcccgcag tcgtagctct tggagttcct   240
ctatacctgc aactcgaaac gattaagaag cagctgcttc ctatcattct gtcccaattg   300
gccggctgca tcgtaggcgt tatttcagtc gtactgatag ctaagcttat gggagcctca   360
caggaagtca tcctgtcact tgctcccaaa tcagtcacca ctccgattgc aatggaggta   420
accaagacat tgggtggaat cccgtctctg acagcagcag tagttgtttg tgtgggttta   480
ctgggtgcag tattaggttt caaaacgatg aagatcatgc atgtaggcag ccctatcgcg   540
caaggacttt cgatgggtac ggccgctcat gccgtcggca cctcaacagc catggatatc   600
agcagtaaat acggtgccta tgcaagcctc ggtttaaccc tcaacggtat ttttactgca   660
ttgttgaccc caactattct gcgattatta ggaattctct aa                      702
```

<210> 3639
<211> 1026
<212> DNA
<213> B.fragilis

<400> 3639

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aaacaaaaga aaaagatgaa agtagctatt gttggcgtaa gcggagccgt aggacaagag    60
tttctacgcg tgctcgatga gagaaatttc ccgttggacg agttagtttt gttcggttct   120
aaacgtagtg ccggaactaa atatactttc cgcggtaaac agatcgaggt caaacttctg   180
caacacaacg atgactttaa aggggtggac attgctttca cttcggccgg tgcaggcacg   240
tctaaagagt ttgagaagac tattacccag tatggtgcgg taatgatcga taactccagc   300
gctttccgta tggatgccga tgtacccttg gtagtgcccg aagtaaatgc agctgatgct   360
aaagatcgtc cacgtggtgt gattgccaac ccgaattgca caaccattca gatggttgtc   420
gcactgaaag ccatcgaaga gctttctcat ataaaaactg tgcatgtatc tacttaccag   480
gcagcgagcg gtgccggtgc agcagctatg gacgaactct acgaacagta tcgtcaggtt   540
ttagccaatg aacctgtcac tgttgaaaag tttgcgtatc agctggcctt caacctgatt   600
cctcaaattg atgtattcac agaaaacgga tatacgaaag aggaaatgaa aatgtataac   660
gaaacacgca aaatcatgca ctctgacgtg aaagtaagtg ctacttgtgt acgtgttccg   720
gcacttcgtg ctcactctga aagtatttgg gtggaaacag aacgtcctat ttcgatagaa   780
gaagctcgtg aagcttttgc caaaggtgaa ggattggtat tgcaagacaa tcctgccgag   840
aaagaatatc cgatgccctt gttcctggca ggcaaagatc ccgtttatgt aggtcgtatc   900
cgtaaagacc tgaccaatga ctgtggatta accttctgga ttgtaggtga tcaaatcaaa   960
aaaggagccg cactgaatgc tgtccagatt gccgaatatc tgattaaaga aggaaatatc  1020
ggataa                                                            1026
```

<210> 3640
<211> 1413
<212> DNA
<213> B.fragilis

<400> 3640

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agtatgcctg agaccggcag ccttccgcat attgatagaa cgcataaaac aacaattatg    60
aaagaaccca agtacaggt cggcatttta ttcgaacctc aaatcaaatt catactgctg   120
accccctatc atatcaacgg ggaagaggtc agcggcaaac aggttgtgac ctatgataac   180
ggacacatcc tctggcaagg gcattcatat gacgaactgc tgtttgagcc cctacacgaa   240
aaaagcgatg ctttttgaact gcaggatgtc accatcggta tcaattttca ttgggaacga   300
aaggaaaacc agcgttttat cggagcactg aaaattattg tagaaaataa aaagttaacg   360
ggaatcaacg taattcatgt ggaagattac ctgaccagtg tgatctcttc tgaaatgagt   420
gcaacggcaa gtctggaatt actgaaagca catgctgtga tttcaagaag ctggttatta   480
gcggggcttt ccctacccta ttccaaagat agagaaaaaa gtaataccac tcccgagaaa   540
gtgccctact ctacatcttc ttttccaccc cttgcacaag aggccgaaaa taaaattcta   600
atccgctggt atgaacgtga cgcacatact cacttcgatg tctgtgccga cgatcattgc   660
caacgttacc aaggtattac ccgtgcctca accgacatgg tgaggcaagc catctctgcc   720
acccgaggag aggtacttat gtcggaagga actatttgtg atgcgcgctt ctccaaatgt   780
tgcggtggtg ctttttgaaga gtttcagtat tgttgggaaa atatcagaca tccataccta   840
```

```
tccaaacaaa gagatagcaa aaaagcaacc gatctacccg atctgtgtaa agaagccgaa    900
gccgagcgat ggatacgtac ttctcccgaa gccttctgta atacaaaaga caagaaagta    960
ctgtcacagg tactgaataa ctatgatcag gaaactaccg actttttatcg ttggaaagta   1020
gaatatgaac aggaagaact gtccaaactg attctgaaac gttcaggaat tgactacgga    1080
caaattctcg acttggtacc agtggaacgg ggaacttccg gacgacttgt cagactcaaa    1140
ataataggta ctaaacggac catgatcatt ggcaaagaac tggaaatacg tcgtaccctc    1200
tccccatcac acctctatag ttctgctttc atcattgata aagtaaacgt cacaaacgga    1260
ataccggatc gctttatcct taccggggcc ggatggggac acggagtagg actctgtcag    1320
ataggagcag ccgtcatggg cgagcaaggt tatacatacg acaccatctt gctgcattat    1380
tacatcgggg caacgataga taaactttat taa                                  1413
```

<210> 3641
<211> 729
<212> DNA
<213> B.fragilis

<400> 3641

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atggttaaag aagaattaat ggagaactgg caacagagaa cggaactcct tttaggagcg     60
gagaagatgg aacgcttgcg gaaatcgcat gtgttggttg tcggattagg aggagtaggt    120
gcttatgcag ccgaaatgat ttgtcgtgca ggcgtagggc gaatgacaat agtagatgct    180
gatattgtac agcccactaa tattaaccgc cagttgccgg ctactcatgc cactttgggt    240
atggaaaaag cgaaggtgtt ggaagcacgt ttcagagata ttaatccgga aatagagttg    300
actgtattgc ctgtttatct gaaagacgat aacatacccg aactgctgga tgctgcacgt    360
tatgatttta tagtcgatgc cattgacacc ataagtccaa agtgctatct gatttatcat    420
gctcttcagc gacgcattaa aataatatcg agtatgggtg caggagcaaa gagtgatatt    480
acacaagtgc gttttgccga cctttgggat acttatcatt gtggtcttag caaggccgtc    540
cggaagcgtt tgcaaaaaat gggggtaaag cgtaagcttc ccgtggtgtt cagtacggaa    600
caggcggatc cgaaagcagt attgctgact gatgatgaga ggaacaagaa atccacttgc    660
ggaactgtga gctatatgcc ggcggtgttt ggttgttatt tggcagagta cgttatcaaa    720
agattgtaa                                                            729
```

<210> 3642
<211> 186
<212> DNA
<213> B.fragilis

<400> 3642

```
cggcgcaaag atacggattt ctattccaaa acaaaaataa ttgtctcatt tacaggagcc     60
cagtcgaaaa taaacttgga atgtgatgtt gcattccgta cacacatgtg cgagcggggc    120
gtggtgccca gagacgggct gtactctata agtgctttac ggggctcgtt taccgggact    180
ccgtga                                                               186
```

<210> 3643
<211> 1488
<212> DNA
<213> B.fragilis

<400> 3643

```
caaattatgg aaaagaaact gaaatcatgg cagggatggc tgttgttctg cggagcgatg     60
gcagtcgttt ttgtactcgg gcttgtagtc tcttcactga tggagcgcag ggcggaaacg    120
gtaagtgttt tcaataacaa acgggtggag attaccggaa tagaagcccg gaacgaagtg    180
tttggagaaa attatccccg gcagtacgag acgtggaaag aaacggcaaa aaccgatttc    240
aaaagcgagt ttaatggcaa tgaagcggta gatgtgcttg aacagcgccc tgagatggtg    300
gtgctatggg ccggatatgc attttcaaag gattactcga ctccacgggg gcacatgcat    360
gccattgagg acattactca ttcactccgt accggtgcgc cgatggatga taaaagtggt    420
ccgcagcctt ctacctgctg gacttgtaag agtccggatg tgcctcgcat gatggagacg    480
attggagtgg actcgtttta taacaacaag tggggagctt tcggcagtga gattgtcaat    540
ccgataggtt gtgcagactg tcatgaaccg acaaatatga aattgcatat cagccgtccg    600
gctttacggg aggctttgc ccgccaggga aagatatag acaaagcgac tccacaggag    660
```

```
atgcgttcgc tggtatgtgc gcaatgtcat gtagagtact attttaaggg ggatggtaaa    720
tatctgactt tcccttggga taagggattc tcggtagaag atatggaagc ctactatgat    780
gaggccgact tcgctgatta tacacatgcg ttgagcaaag cccgtatact gaaagcgcag    840
catccggatt atgaaatttc tcagatgggg attcatgccc aacgcggagt atcgtgtgcc    900
gattgtcata tgccctacaa aagtgaggga ggcatgaagt tcagcgatca ccacattcaa    960
agtccgttgg ctatgatcga ccggacttgc caggtgtgtc atagggagag tgaagagact   1020
ttaagaaata atgtatatga tcgccagcgt aaagcgaacg aaattcgtgg ccgtttggag   1080
catgaattgg ctaaggcaca tattgaggct aaatttgcat gggacaaggg tgcgacagat   1140
gcccaaatgg cagaggcgtt aaagttgatt cgccaggctc agtggagatg ggatttcgga   1200
gtagcttcgc atggaggcgc gttccatgct ccgcaagaga tacaacgtat tctggggcat   1260
gggcttgaca aggctttgca ggcccggttg gctatttcga aagtactggc tcagcacggc   1320
tacacggctg acgttccgat gcctgatatt tcgacaaagg aaaaagcaca ggaatacatc   1380
ggtctggata tggagaagga gcgtaaggcg aaagacaaat tcctgaaaac aatagtacct   1440
gagtggttgg agaaagcgag ggccaacggt cgtctggcta aactgtag                1488
```

<210> 3644
<211> 972
<212> DNA
<213> B.fragilis

<400> 3644

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attagtatgg acaaaaaaat atctatttcc caaataaaag aggttgtgca gcaggcctac     60
gaacaggtaa aaggtaatac aggcggtaag aatgccgatt atattcctta tctggccaat    120
atagacaaaa accttttggg tatcagtgtc tgcctgctga acggtcagac cattaccgtg    180
ggtgactttg attatcgttt cggtattgaa tccgtatcta aagtgcatac agccattctg    240
attctccgcc aatacggggc acagaaagtg cttgagatga tcggtgcgga tgctaccgga    300
cttccttta actctatcat tgccatcttg ttggagaatg accatccgtc tactccgttg    360
gtaaatgccg gagccatctc ggcttgttcc atggtgactc cgattggtaa ttcagataag    420
aaatgggacg ctatcgtaca gaacattacc gatctttgcg gttctgctcc acagttgatc    480
gaagaactct ataagtcgga gacagctacc aatttcaata accgttctat tgcctggtta    540
ctgaagaact ataatcgtat ctatgacgat cccaatatgt cactggacct ttatactcgc    600
cagtgctctt tgggggtaac tgcacagatg ttgtcggtgg ctgccggtac ggttgccaat    660
ggcggtgtga atcctgtgac taaaaagcag gtgttcgatg ccgaactgac tcctaaaatc    720
acatctatga ttgctaccgt aggcttctac gaacattcgg gcgactggat gtatacttca    780
ggtattcctg ccaagaccgg tgtaggtggt ggtgtgatgg gagtattgcc gggtgtattc    840
ggtgtatctg cctttgctcc tcctttggat ggctcgggca actcggtgaa agcacagttg    900
gccattaagt acatcatgaa caaattggga ttgaatgtat tcaatggtgc gagagtgacc    960
atcgtcgatt ag                                                        972
```

<210> 3645
<211> 867
<212> DNA
<213> B.fragilis

<400> 3645

```
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tccattccgc aggttatggg tatactcaat gttacacccg attcttttta tgcaggtagc    120
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<210> 3646
<211> 213
<212> DNA
<213> B.fragilis

<400> 3646
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aagaatgaag ataccgattc agacagcgta aattcacttc cggaacttga gctatcttat   180
tcagccggta tctgtttttt cttattaaag tag   213

<210> 3647
<211> 2139
<212> DNA
<213> B.fragilis

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<210> 3648
<211> 2910
<212> DNA

<213> B.fragilis

<400> 3648

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gttctgatta tagccggaaa aggttgggaa aactacgagc tttcacccga ccacgaaaaa     360
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<210> 3649
<211> 1158
<212> DNA
<213> B.fragilis

<400> 3649

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gaaacatctt tagaagagcg agatatagta attgatctgt ctgtctctaa tccatatctg   180
ccgatgtctg tattggtgga caccattgag tctgtcaggc tgcagttacc ttctccttat   240
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<210> 3650
<211> 1803
<212> DNA
<213> B.fragilis

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<210> 3651
<211> 1026
<212> DNA
<213> B.fragilis

<400> 3651
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<210> 3652
<211> 714
<212> DNA
<213> B.fragilis

<400> 3652
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<210> 3653
<211> 987
<212> DNA
<213> B.fragilis

<400> 3653
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<210> 3654
<211> 516
<212> DNA
<213> B.fragilis

<400> 3654

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<210> 3655
<211> 1353
<212> DNA
<213> B.fragilis

<400> 3655

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ttaagttcgg ccatcaccaa cataacactg gtagtagcta cggcagtaac cggatacctt      600
gctgaagtca actggcatct cccattcgtc gtctatctgc ttccaatcat ttcactcgta      660
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aaagccccgg cagacaaaga agaagatgta gataccggta acagcaaata cggcattcac      780
gttcgccatc ttgccggcat tatgggtgtt tacggactgg ctacctttct ggtactggta      840
gtcagtttca acctgccatt cctgatggaa gaatatcatt tcaccagtgg taactccggt      900
attatgattt ctctcttctt tctggctatc atgactcccg cttttttct gaaccggatc      960
gtaggcactc tgaaagagaa aacaaagttt tacagttttt tgagtatcgg catcggactg     1020
gcactgatct ggatctcacc caaagaatgg gtgatagctc cgggatgtat cctggtcggg     1080
ctggggtacg gagttatcca acctgttgtc tacaaccaga caacccatac ggctatttca     1140
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tgtcccttca ttatcgactt cttccagtcg actgtattcc acatcaaatc tcagcagttt     1260
gcttttgtat tcaatctatg catcagcatc gtaatgcttg tcatttccta taccaaacga     1320
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```

<210> 3656
<211> 1461
<212> DNA
<213> B.fragilis

<400> 3656
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ttaaaaataa gagtaattat ggaagattta aatttcagaa aaggtgatgc taaaacagaa    60
gcatttggtt caaacagaat gttacaaccc tctccggtag agaaaatacc tgatggtcct   120
actactccgg aaatcgccta tcagatggtg aaggacgaaa cttttgctca aactcagccc   180
cgtctgaatc ttgctacatt cgtgactact tatatggatg attatgcaac gaagctgatg   240
aacgaagcta tcaatatcaa ctacattgat gagacagaat atcctcgcat tgctgtgatg   300
aacggtaaat gtatcaatat cgttgctaat ttgtggaact ctccggaaaa agatacctgg   360
aaaaccggtg cattggctat cggttcttca gaagcttgta tgttgggtgg tgtagctgcc   420
tggttgcgtt ggcgcaaaaa acgtcaggcc cagggtaaac catttgataa acctaacttt   480
gtcatttcaa ccggtttcca ggttgtttgg gaaaaatttg ctcagttgtg gcagattgag   540
atgcgtcagg tgcctttgac gctggacaag accacacttg acccggaaga agccctgaag   600
atgtgtgatg aaaatacaat ctgtgtagtt ccaatccaag gggttacatg gaccggtctg   660
aacgatgatg ttgaagccct tgacaaagcc ctcgatgcgt ataacgctaa aaccggttat   720
gatattccta ttcacgtaga cgctgccagc ggtggtttca tcctgccgtt cctgtatcct   780
gataccaaat gggacttccg tctgaaatgg gttctttcca tcagtgtatc cggccataag   840
ttcggtctcg tatatccggg tttgggttgg gttgtctgga aggcaaaga atatctgccc   900
gaagaaatgg ctttcagcgt aaactactta ggagctaaca ttactcaggt aggtttgaac   960
ttctctcgtc ctgcagctca gattttggga caatattatc aatttattcg tttaggattc  1020
cagggataca aggaagtaca atacaactct ttgcagattg ccaaatacat ccacagccag  1080
attgctaaga tgactccgtt cgtcaactac tcggaagatg tagtaaaccc gttgttcatt  1140
tggtacatga agccggaata tgcaaagaac gccaaatgga ctctttacga tttgcaggat  1200
aagctggctc agcatggctg gatggttccg gcatatacat tgcctgccaa gctgcaagat  1260
tatgtggtta tgcgtgtcgt tgtccgtcag ggattcagtc gtgatatggc cgacatgttg  1320
ctgggcgaca ttaagaatgc tattgccgaa ctggaaaaac tggaataccc gacatccact  1380
cgtattgccc aggagaagaa tctgccggta gaagccaaag tatttaacca taccggtaaa  1440
ccacaagctg ccaagaaata a                                            1461
```

<210> 3657
<211> 579
<212> DNA
<213> B.fragilis

<400> 3657
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agaatatcaa gtatgattaa tgctcaagac atcaagaacg gaacttgtat ccgcatggat    60
ggcaaactgt atttctgtat cgaattggtc cacgttaaac cgggtaaagg taacaccttc   120
atgcgtacaa aactgaaaga tgtagtaagc ggctacgttc tcgaacgtcg cttcaatatc   180
ggtgagaagc tggaagacgt acgcgttgaa cgtcgtccct atcagtacct gtacaaagaa   240
ggtgaagatt atatcttcat gaatcaggaa acattcgatc aacacccgat cgctcacgac   300
ctgatcaacg gtgtagattt cttgctggaa ggtgcagtag tagaagttgt atcggatgca   360
tctaccgaaa ccgtgcttta tgctgatatg cctatcaaag ttcagatgaa agttacttat   420
acagaaccgg gcttgaaagg cgacactgct accaacacct tgaaaccggc tactgtagaa   480
tcaggtgcaa ccgttcgtgt cccgctgttt atcagtgaag gcgaaacaat cgagatcgat   540
actcgtgacg gttcttacgt aggtcgtgtg aaagcataa                         579
```

<210> 3658
<211> 1413
<212> DNA
<213> B.fragilis

<400> 3658
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aatagtacaa gaatgaaacg acttttttat ttctttcttt ttgtctgtgt ggcagttata    60
gccaatgctc aggcaaaata tgtttttctat ttcattggtg atggaatggg tgtcaatcaa   120
gtgaatggta cggaaatgta tcgtgccgaa atccagaagg ccgcattgg tgtagagcct   180
ttgctttttta cacagttccc ggtggggaca atggctacta ctttctctgc cactaattcc   240
gtgactgatt cttcggctgc gggaactgct ctttccaccg gcgaaaagac ttataatggt   300
tccattggga tggatgatca gaagaatcct ttgcagacag ttgctgagaa agcaaagaaa   360
gccggtaaaa gggtggggagt tactaccagt gtcagtgtcg atcatgctac tcctgctgct   420
ttctacgcac atcagccgga tcggaatatg tattatgaaa tagctaccga tcttcctaaa   480
```

```
gcaggttttg attttttatgc cggtgccggt ttcctgaaac caaccactac ttatgataag      540
aaagaagctc cgagcatttt cccgatgttt gaagaagccg gttacaccat tgctcgtggg      600
tataacgatt ataaagccaa agctgctgcg gcaggtaaga tgatattgat tcaagaagaa      660
ggtgccgata cgggctcttt gccttatgct atcgatagta aagaaggaga cctgactctg      720
gcacagatta cagaaagcgc tattgacttt ttgactaaag gcaaaaacaa aggtttctttt      780
ctgatggtag aaggggggtaa gatagactgg gcttgtcacg ggaatgatgc cgctacggtg      840
ttccacgaag tggcggatat ggataatgcc atcaaagttg cttatgagtt ttacaagaaa      900
cacccgaaag aaactttgat tgtggtaact gccgaccatg aaacaggagg tatcgcattg      960
ggaactggaa agtatgcctt gaatctcaaa gcacttgaga accagaaagc atctgccgaa     1020
gtactctcta aaaagatcag tgatttgcgc aaagctaaga caatcatgt agcttgggaa     1080
gacattaaga atctgctgtc cgaagagatg ggcttctggt ctgtacttcc tatcacctgg     1140
gagcaagaga agaaactgcg tgacgaatat gaaaagtcat ttgtaagaaa taaagtggaa     1200
tttgccgaaa gtatgtatgc caagactgag ccgatggctg ctaaagccaa agaagtgatg     1260
gatcaaatcg ctatggtagg ctggacaagc ggcggacatt ctgcaggata tgtgccggta     1320
tttgctatcg gtgccggttc cgatctgttc atcggtaaaa tggataatac ggagataccg     1380
aaacgcatcg caaaagccgg tgggtataaa taa                                  1413
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<210> 3659
<211> 1131
<212> DNA
<213> B.fragilis

<400> 3659

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caaaaacgga ggcaattatg caaattatta gtaatacgag aacaaaacgc cttgctattc       60
cttataaaaa acattatatt tgtaaatgaa ctccaaacct atcccattat gaagcaaaca      120
gcctatatat acctgctcac cctttcttgc cttctctgcg catgcaatag agaaaacaga      180
acaaatttgc cacagcccca agtcaccggt gtagcagatt cactggaaac ggtgcctccg      240
gaagagaagc ccaaagccat ctccgcagaa cagatagaga tcaaaaaaga tttgctctat      300
gataaatata ctcttgaaga tacgtatccg tacaaagata cgacccgcag ttttcaatgg      360
gataagatca aagaacgcct ggcactgctc gaaaacattc agcagacacc ctcgcaatgg      420
ggcatcttgc agaactataa gaaccggaac ggcgaggctc cattggtacg ccattacaaa      480
cggaatgcct ataaacgcat tgccgacacg ctgggcatag agcgctacca gtccgtcccg      540
ctctatttgc tcaccgatac gcttgtgccc gaacgttatg gagaagacgg ttcgctggtc      600
cgcttcctgg ccgacggaga gaatttcgtc aaggtatccc ctatctatat tggcgaagag      660
tggtatgtac ccaagaggta cgtcaaagtg ctcccggata cgacacactt catcaaaaca      720
atcatgatag accgaagaga ccagaacata atgactttgg aacaaaccgg tgaagcccaa      780
tggaccgtac ggagtatgaa ccccgccact accggaaggc atcgcccttc gtatgcacaa      840
gagacaccat taggaatatt cgtcctacag gaaaaaaaga cacgcatgat attcctcaaa      900
gacggttcca ccgccaccgg gaggtttgcg ccttatgcca accgattctc agacggagga      960
tacattcacg gagtcccggt aaacgagccc cgtaaagcac ttatagagta cagcccgtct     1020
ctgggcacca cgccccgctc gcacatgtgt gtacggaatg caacatcaca ttccaagttt     1080
attttcgact gggctcctgt aaatgagaca attatttttg ttttggaata g             1131
```

<210> 3660
<211> 1242
<212> DNA
<213> B.fragilis

<400> 3660

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aaatgcaatg gaaatagtga gaaaccgcga aaaggcaaac gaataaattc tccccgatct       60
cctctctgcc atacagacat tctctttcaa gatatccgta tgggagaggt aacatatcga      120
caaaaatcca tatatttgtg cttttcaaatc gtcagcataa tgaaaaagga gtttacacga      180
atagccataa aagtgggaag taacgtactg acccgacagg acggaacact ggatgtcacc      240
cggatgtctg cgctaaccga tcagatagcc gccttgcata aagccggagt agaggtgatt      300
cttatctctt cgggagctgt tgcctcggga cgaagcgaaa tacgtaccct caggaaactc      360
gacagcgtag atcagcgcca attgttctcg gcagtgggtc aagccaaact cattaaccga      420
tattacgagc tgttccgcga tcatggcatt gctgtaggac aggtactcac caccaaagag      480
aattttggta cacgccgtca ttacctcaac cagaaaaact gcatgacggt gatgcttgag      540
aacggcgtca ttcctatcgt caacgagaac gacaccatct ccgtcaccga actgatgttc      600
```

```
acagacaatg acgaactgtc gggcctcatc gcctcaatga tgaatgcaca ggcccttatc    660
atcctgagta acatcgacgg catttataac ggttcccctt ccgatccgga ctcattagtg    720
atccgggaga ttggacaggg aaaagacctg agtaactaca ttcagaccag caaatcgagt    780
ttcgggagag gaggcatgct gaccaaaacc aacattgccc gcaaagtggc agatgaaggt    840
attacagtaa ttattgccaa tggcaaacgc gacaacatcc ttatcaacct catagagcat    900
cccgaagaga cagtttgcac tcgtttttatc cccgcatccc aacccgtatc gagtatcaag    960
aaatggatag ctcacagcga aggtttcgct aagggagaga tacatatcaa cgaacaggct   1020
accgaagtgt tgaactccga caaggcagtc agcattcttc ccgtcggaat cacccgcatt   1080
gaaggagaat ttgagaaaga cgacatcgtg cgcatcattg attaccgggg tactccggta   1140
ggtgtaggca aagtcaactg tgactccatg caggcacggg actccatcgg aaaacatgga   1200
aaaaaagcag tagtccatta tgactacctt tacattgaat aa                      1242
```

<210> 3661
<211> 528
<212> DNA
<213> B.fragilis

<400> 3661

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accaatctgg gcgtccaatt ctttaataaa actactaaac gcagataccg cgcactggta     60
tggggcattg tcgatcagga tgaacgtacc atcgtaggca gtatcgcccg caatccgaaa    120
gaccggatgc aaatggctgt tatggccgat cctacccaag ggaaacatgc cgtcacccac    180
taccgggtgc ttgaacgtgt gggatatgtc actttggtgg aatgtattct tgaaaccggg    240
cgtacgcatc agatacgtgt gcacatgaag catatcggtc atgtactctt caatgacgag    300
cggtatggcg gtcacgaaat cctgaaaggg actcacttta gtaaatacaa acaatttgta    360
aacaattgct tcgacacttg tccgcggcag gctttgcacg ccatgacgct ggggtttgtg    420
catcccgtca ctggcgaaga gatgcatttt acttcggagt tgccggacga catgacccgg    480
ttgatagaga agtggagagg ttatattagt aacagagatt tagaatga                528
```

<210> 3662
<211> 894
<212> DNA
<213> B.fragilis

<400> 3662

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agaataatgg gccgtcccat taaaattatc ggctatttat gctttctgat ggcactttgc     60
tcatgtaaag agaccaaaga gcagcaaata tcccgtttga ttcacaaatg ggagggtaga    120
acgattgtct atcccgctga tatgacattc agtgttttgg gaaaggacag tgccggttat    180
tcgtttcccc aaaatgaata taccataatg acttacgtgg attcggtggg ctgcaccagt    240
tgcaaattgc aacttcctac atggaaatat ttcatttcta tggtcgacac aatggccaat    300
ggaaaggtat cttttctctt tgctttccat ccgaaaaaca aaaagaaat ctcttttcta    360
ttgaagagag atcgattcct ttatccggtt tttatcgatg aaaagggagg ttttgatgct    420
ttgaatcatt tcccttcgga tgtgaacttt caaactttcc tttttggacag tcagaacaag    480
gtgattgcga ttggtaatcc tgtccataat aaaaaggtgc gtgacccttta tttgcaaatt    540
attaccggac ggcaaaccgg agtcgctacc tcttcccaaa caaagtggt tttggataaa    600
aaactcgatg aaatgggcga ttttgattgg aaaattcccc agaccgctac ttttagtttg    660
cggaatcttg gcgatcatct tctgattatc gaggacataa atgcttcgtg tggctgtaca    720
tccgtcactt acagtaagga gcctgtacct tcaggaagt ctgccgatat tcaggtaact    780
taccgtgcag aacatcccga acatttgag aagaccatta ctgtatattg taatactccc    840
acctctccaa tacgtttgaa gattcggggt aatgcgattg atgaagaata ctaa          894
```

<210> 3663
<211> 345
<212> DNA
<213> B.fragilis

<400> 3663

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ctttgtctta tgaattttca aagaaataca gatatgacta agtttgaaat agaagaaaag     60
atagtagata tgctcaaaac cgtattcgat cccgaaattc cggtaaacgt atacgatctg    120
ggactgattt acaaaataga tgtttccgag gatggagaag tatctattga tatgaccttg    180
```

```
actgctccta actgtcctgc ggcagatttc attatggaag atgtacgtca gaaagtagag     240
tcgattgacg gggtaaactc tgccacaatc aatctggttt ttgagccgga gtgggataaa     300
gatatgatga gcgaagaggc taagttggaa ttgggctttt tgtaa                      345
```

<210> 3664
<211> 1566
<212> DNA
<213> B.fragilis

<400> 3664
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tcacttatta tgatgaaaac gaaacattac ttttcttcg tttttgcttc acttttctg     60
ataccgtccg ttatcacagc acaggacgtg aactatcaga aggagtttga tactttcaa     120
gagaaacagc aaaaagaata taaagaattt aagaataaag cagacgaaga gtttgccact     180
ttcctgaaag aagcgtggca aaagtataat gcctctatgg gggattcgat gcccactcgg     240
ccggaaccgg tgaaaccgac acttttgat aaaaaaagc cggttcctgc tccggtagag     300
attaagccgg cggtgcctaa gatacccata gccgataaac cgggtgtagg aggcaaagtg     360
aatgtggaag tcaagaagcc ggagctgccg gcagtggctg ataaaccggc tccgggtgtt     420
tatgttccgg gcaaacctta tacccctgta aaggtagata tcccagctcc gttgcccgga     480
agttcagcgc atcgcaatgc gattgagttt tatggaacac ggtttgaagt ggctacagac     540
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cgtttgtgta aagccgatca tgaacagttg attaacgatt gtattcgttt aaagaaggag     660
catcagatga acgactgggc attttttaatg ttcatcaagc agttgggagt gcagatgtgt     720
ggtgttgcca aaaaagacga tgtagctttt ctgcagatgt tcatcctcaa taaatgtgga     780
tataaggtgc gtttgtccaa gataaacgat aaattaaaat tgttggtggc tccggcagga     840
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gatttctata aggactatcc gcaatgtgaa gttgctgttt actacaaaac ccctatgagc    1140
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gatgctgtgt tgctcgacta tccgaatcat atcgcttcgg ctgtacggtt caacgaagat    1440
atttcgggtg attacattct gttggatggt aaaaaatatc ttatttgtga tccgacttat    1500
atcggtgctc cgataggaat gtgtatggat cgtttcaaga gtgtacccccc ggaaataatc    1560
cgctag                                                               1566
```

<210> 3665
<211> 312
<212> DNA
<213> B.fragilis

<400> 3665
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aagtgtatta tgaaagtaaa gttattgttt gtgatatgtt taagcgtttt ttcgctgtgt     60
ggtatttatc atgttcaagc gaacaaagag gataaaaacg tatcaacttt agtattacaa    120
aatattgagt cattggctca gaatgaagga aatagtgatc atggaaatat tgatacgact    180
ctggaacctt attattatca aagttctaga gattattggt taccggggat gaatggtaca    240
actgaaattc cctgttgtga aaaatgtgag agtaaataca gtggatgtgc taaaggatta    300
gctcgttgtt aa                                                        312
```

<210> 3666
<211> 1275
<212> DNA
<213> B.fragilis

<400> 3666
```
aaccgagtta tgagaatcac aaatctattt tggacagttg tgcttttagc cccactgtct     60
gtctttgcac agcaacagaa agagaatctg tttacaattg atgcacagat acgtacccgt    120
```

```
ggtgaatacc gcaatggagt attgaatcct cgtccggaag gagaagaacc cactttcttt    180
gttaacgagc gtgcccggct ttctttgggg tatcagcgtg acaggttaca gatgagactt    240
tctgcacagc acgtaggagt gtgggggcag gatcctcaga ttgataagaa tggaaggttt    300
attttgcatg aagcgtgggc tcgccttgac ttctcaaaag gattatttgc gcagttggga    360
aggcaaccgt tgtcgtatga tgatgagcgt ctgcttggcg gactggactg gaatgtggcc    420
gggcgatttc acgatgcatt aaaattggga tatgaaagta aactgcataa gttgcatttg    480
atattggctt tcaatcagaa tgatgaaaac cgttcatacg gaggcactta ttatgctccc    540
ggagcgcaac cttataaaac gatgcaaacg gtttggtata acggtcattg ggctaaagat    600
ttcactgttt cgctgctttt tatgaatacc ggatttgaaa cgggtacgga gggaaatggt    660
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tatatgttta gcctgaaagc cggttataaa attgatccga agtggagcgt aagcctaggt    840
acggactatc ttagcggcga tcccgatagt aaaaaagtga gtactttga cccgttatat     900
ggaacgcatc ataaatttta cggaggtatg gactatttct atgcatcggc ttacaataag    960
gggttgtggg ataagatttt gagcgtagac tttaaaccga ctaagaaatt gagtttctcg   1020
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cgctgcctgg ggtcggaatt ggatatgcag gtagattata ttttgatgaa agacgtaaaa   1140
ctgactgccg gttattctac tatgcttgga actaagtata tggatatagt aaagggaggc   1200
aaccataaaa gttggcaaga ctggggctgg ttgacactga atatcaatcc acgcatttta   1260
tttactaagt ggtaa                                                     1275
```

<210> 3667
<211> 258
<212> DNA
<213> B.fragilis

<400> 3667

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acacattata tccctaccat tatgaaagaa gataaagaca cccgcgtagt agaagtcttc     60
accggttcgc cttgggaagc agagttcatc aaaggattgc tcgaaagcaa tggaatagaa    120
tctatcctga aagacggagg tgggctcgca gctttggcac cttactacat cggacaggaa    180
atagctgtcc tcgtcaatga agacgattat gaaaatgcaa tggaaatagt gagaaaccgc    240
gaaaaggcaa acgaataa                                                   258
```

<210> 3668
<211> 1131
<212> DNA
<213> B.fragilis

<400> 3668

```
attaaaaata tgcatatcat taaagtgata tttagtcttg cactaatatt gaatatttgc     60
gttagttgtc atgaaaatga tgacaccgca tacttcaatg gtaaaattca aacgattgaa    120
gatagtatca aagacacgaa gaaagctaca ttgaaaatac ttccattgga tggagcgaat    180
tttggatggt tatccacata cgactcactg atgttttta tgaatcctaa attaccggat     240
cgctttttata atatatttaa tatagacacc ggaaaagaaa taggcacttt ttgttataga   300
ggaagtggtc ctggggaagt tgccgctttg ggtccgattt ttcatttctt taaagaaaaa    360
ggggatctga aaactctact gttcgctcct aatgaagaga agctatttat ctggaatata    420
actcagtcga tcaagcggga caccactgtt atggataagc aaatctccta tccctggaga    480
gaggagaatg gaggtgctcc atactatttg atgtttctga aggatgaaaa tacattaatt    540
acagagttac agtcgttccc gcttaatgat aaagaagcta ctttgcccgc ttatcaaaaa    600
cggacacttg acacgaataa gttgctgaag agcttttcaa gctataagaa gtcgataagg    660
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gatggaacta aagtggtgca agctatggtt catcttgcgc aattgaatat tctggatctt    780
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catgtatatg attgggatgg gaatctggta caaaaaatag agacggatta tagcattggg   1020
cagatgtgga tagatcctat ccgaaataga ttatatgtga caaatcccca aatagatgac   1080
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<210> 3669
<211> 858
<212> DNA
<213> B.fragilis

<400> 3669
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ttctttcagt ctgaagaaga aatcagtaat gaaatagcaa ctgcactgat tcctcagtta   180
aagacaaaca agttcgaggc tgttcatttt tacggagccg gttgtgcttt ccccgacaaa   240
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agtacggata tgctcgctgc tgccagaagt ttgtgcggtc atcaaccggg tattgcctgt   360
atcatgggta caggatcgaa ttcatgttat tacgatggta aaaacattgt caccaatgta   420
tctcctctag gatttatact gggcgatgaa ggcagtggtg cggtattggg caaactgctg   480
gtaggcgaca tccttaaaaa ccagatgact ccgggactta agaaaaatt tctggaacag   540
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cacgccccgg ttcatttcat cggttctgta gcattctatt acagagagtt actttccgaa   780
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<210> 3670
<211> 1800
<212> DNA
<213> B.fragilis

<400> 3670
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aatataatac tgttatttt aggattcact atcatttatt cttgttcacg gcatcagcaa   180
ataaacagaa ccatctttct agcagattcc attatggaat atcaacccga tagtgcgttt   240
aaattattaa aaacaataaa tcaaacagat ttatctgttt cagaaaacgc aaaatacgca   300
ttattattag cacaagcaca ggataaagcc ggccatcaat taatcaacga ttcattaatt   360
ttgattgcta taaatcatta tgatcactta tcaaaagata acaataaagc aaaagcatac   420
ttttatttag gacgatttta tcaaaacaat aatgattatg caaaagccat taactcttat   480
ctcattgcag aaaaagcaac atcagatcat gacacattat taactttgat atacgataat   540
ttgggtacat gctataaaaa ccaagatttt tatgacaaag ccttagaagt atataaagac   600
gcatactaca tttataaaca atacaatagc aagaatatcc tatacccact tcgaggaatg   660
gcaagcatat atgctattca agaacagttt gagaaagctc ttaaatatta ccaaacagct   720
ctcaccattg catcaagtac caatgactct acatggcagt ctatcttatt ttgtgatatt   780
tcccggattt atgacaataa aaacctctat gaagcggcat atagttatat agtacgctct   840
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tcagacttaa atacacaggc atcggcatac caagctctat atgaaataaa aaaagaacaa  1020
ggagaattaa atgatgcaat tctatacaat gacacgtctc tcattctata tgattctata  1080
caagatttaa accatagtgc ggaaatcagt cacatactaa agcaacatgc gacagagaca  1140
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ttattactca ttgcgtgtat cacatttatc tttctttata aagataataa aagaaaaaaa  1260
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gagaaaatca aaacgctaat tgatagtaat acatatattg cggaaaggaa taaagaatta  1380
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gaagttttca tcgaagcaat tcaggagtta cgagaacaat atccaaaact aacacaagaa  1620
gacctcttct attgcattct acaatatttg cgtctatcta cctctacaat caaattttgt  1680
atgagagttg aaagtaacca agcactcacc caaagaaagt atcgcataaa aaaacaaatc  1740
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<210> 3671
<211> 1314
<212> DNA
<213> B.fragilis

<400> 3671

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aatctgggta tctccaacac agatatcgct ctttatacct cttggctcta tttaccatgg    180
gttatcaaac ctttctggag tccatttgtc gacttattaa aaaccaaacg ttggtggata    240
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tcaaacttct tccaaacgac ccttgccatt ttttggctag tggcattcag ctcggctaca    360
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gtgatgctcg caggtggact tgaaatatgg acaggcagca ttaaatatgg atggagtatc    540
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tactccgatg gtgaacataa gacagcacac tacgcgatct gcaccgcttt tatggcattg   1140
ggtatgatgc tgccgggtat ggctgccggt tggttgcagg aactgatcgg atacgaaaac   1200
ttctttatct gggtaatggt ttgttgtacc gcgacaatag ccgtatgcgc ctttattaag   1260
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<210> 3672
<211> 1260
<212> DNA
<213> B.fragilis

<400> 3672

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ttggaacaga cttcctacat cctctctgag aaccggaaag atctggaacg gatgtcaccc    180
gacaatccga aatacgaccg actgaggttg accgaagaac gacttcgggg aatcgcttcc    240
gatatacgca acgtggccac tctcccctct cctctgggca ggatattgaa agagagcatt    300
cgtcccaatg gcatgagact cactaagata agtgttcctt tcggggtcat cggcatcatt    360
tacgaagctc gtcccaatgt cagcttcgac gttttttcgc tttgcctgaa aagcggtaac    420
gcctgtatcc tgaaaggggg aagcgatgct gactattcga atcgtgccat cgtagaagtg    480
atacaccaag tactccgaca gtttaacata gacactcaca tggtcgagtt gctaccggcc    540
gaccgtgaag caacccggga actgctgcac gctgccggat acgtagatct gatcattcct    600
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gcaatcaaaa ctgtgaatag ttttgagaac gcactcggac atatccagga atacagctca   1020
cgacatagcg aaagtatcgt caccgaaaac ccgaaacgcg ccgcgctttt cacccgcatg   1080
gtagatgcag cctgtgtata taccaatgta tctaccgctt tcaccgacgg agcacaattc   1140
gggctgggag cagaaatcgg catcagcaca caaagttgc atgcccgcgg accgatggga   1200
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<210> 3673
<211> 555

<212> DNA
<213> B.fragilis

<400> 3673
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caggcaatgg tcagggtcga taaatatttg tttgaacgca tcgtcaatgc ttcgcgcaat   180
cgcatacaga aagcggctga agacggtttt gtcatggcca atggcaaacc ggtgaagagc   240
agctataaag tgaaacctct ggatgtgatt acggtgatga tggatcgtcc ccgttatgac   300
aatgagatta ttccggagga tattccactt catattgtct atgaagataa atacctgatg   360
gtggtgaata agccggccgg actggtggtg catacgggac acggaaacta tcatggtacg   420
ttggtcaatg ccatcgcttg gcatctcaag gataaccccg attacgatgc caacgaccca   480
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acaccggatg cctaa   555

<210> 3674
<211> 609
<212> DNA
<213> B.fragilis

<400> 3674
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tttctttata tgctccgggc acatacttat ctggctgatg atccttcggc ctgtgtcaac   180
tgtcacatca tgggacctta ttatgcaacc tggttccata gttcgcatag caggaatgct   240
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aatacggaat ttgtaaatac gggacgaatt gattatatga tgtctcaggt aggtgaaggg   480
aaagcttgtt gggactgtca tcgggacgta ccgcatggcg gaagcaacag tgctgcctcc   540
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<210> 3675
<211> 1929
<212> DNA
<213> B.fragilis

<400> 3675
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gtggagcttg aaaaggtatt agaacattat agaactgatc cggaaaaatt ggaggcagct   180
cgttttttaa ttcgtaatat gccgggatgg tattcttatg aaggaaatga acttgattct   240
attcaccatt tattagttgg ggtttgtgaa gggcgttcta tatctaaaag ggagaagaat   300
aaatggaaca gaatttcttt taactctctc tccaagatat atgacgccca agtgataact   360
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ggatggattc ctatagatat ggcacttggt aatgctggta aggttacttt ccgggatata 1140
gaacccgatg tgatttatca gactctttat cagggagatg gaggaaaact gtatccggca 1200

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ggatatccgt ttatatctaa aacgggggt gggtttgttt tgttgaaacc caatatcgat   1260
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gcttatcgag ctatcatagg ggcaaaagtt gaagcagctg atgatttgtc atttatgcag   1380
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atcgaaagaa ttgttttttc tccgcgtaac gatgataatt acatttggcc tggggataat   1740
tatgagttat tctatcagga cggaataaat ggatggaagt cgttaggcag caaggtggct   1800
acagaaaggg aaattgattt tctggtgcca caaaatgctc tgctatggtt gaggaatcgc   1860
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<210> 3676
<211> 654
<212> DNA
<213> B.fragilis

<400> 3676

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ctggatatat acacacgcca tggcgaagct gtaatagtgc ccgacgtaaa aggaatgtct   180
gtaagcgaag cggaaaagat gttccggaat catggactga cttgtgtggt gtccgactcc   240
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gtgatctatc agggacgcca attgcagatt ggagataaag ctcccatcgg cgctacgctg   540
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<210> 3677
<211> 3084
<212> DNA
<213> B.fragilis

<400> 3677

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tttctgaatg gaactgcccg gaaagaaatc tctgtaggca aaatccatat cgattctgtt   180
aatacagaag gaaatgactt gatacttttc gctaacataa actgttcgta tattcccttc   240
cgtacagaca atgttagcaa aatttatcaa ggcatcaaag cattactccc tccagagcta   300
gcaaaacgca agttacagat ccggacagac caccatgcca tcgaagagct aattcctctg   360
gcacttcgta atacaagagg gagaaaaatt ccgacattta gttacaaagc agatacacct   420
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caaactgttg aaatcattgt cgacaacgat agatgcagag acggacattc ggtttattca   720
gaattaaacg gaagtaaaat gtggaaaaac ggggaagaag caggattcgc ccacttaaag   780
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tcggacacaa tgataaccga tacctatcat ccgaaagctc aggtgaacta tccatacgag   1260
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<210> 3678
<211> 264
<212> DNA
<213> B.fragilis

<400> 3678

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gtgtatttgc atgtggctca gttggataat gtcagactgt tattgataaa atttatagat    180
gaaactggag gtagaaaaat tatattttat ttgcaatcaa ctcttttttt gattttcttt    240
gcaaaagaaa atgatgaaca atga                                           264
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<210> 3679
<211> 1029
<212> DNA
<213> B.fragilis

<400> 3679

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cataatccaa tgataaagga gcaggtaaaa tcattatgga aactttgttt cgatgatagc     60
gaggcattca tcgaacttta cttccggctt cgttacaata acgaagtcaa tttagccatt    120
caaagtggcg aagaagtgat tgctgcgctc caaatgctcc cttatccaat gacattctgc    180
aataaaatag tacctacttc gtatatctcc ggtgcgtgta cgcatcccga ttaccgtgcg    240
aaaggagtga tgcgggagtt attatcacag agttttgccc gcatgctccg taacggtgtt    300
ctgtttagta cattgattcc tgccgaaccc tggctattcg gttattacgc caaaacaggc    360
tatactcccg ctttccgtat ctcccacaaa gtcttctcac tttcagagtt gaccattggt    420
ccggaaccgg ataccatgat tgaagaaacg acggaatatc aagaagatta ttatcaatac    480
ctgaccggca agctatccga acgtgcctgt tgtttacaac atacgcctac agattttaaa    540
```

```
gtagtccttg ccgatcttgc cttgacacaa aataccgttc tcattgcccg gaaggataat    600
cgagtaacgg gtatagctgt tgcctataaa cacgatgata gctcgtatat caacgagttg    660
tttgctgaca atgaggctgt ccgggcacaa ttactctacc gggccggact aagaaacggc    720
actgaacgga ttattcttca acttcccccct gtagaatccc tgccaagtgt cccattagga    780
atggcacgta tcattgatgc ccgggcagtt cttcaactct atgcagcagg ttgtcccgaa    840
gtggaaatga atatcgaact gactgacgaa cagctttcgg tcaataacgg ttattactat    900
ctctgcaaag gaaaatgtat gaccagtgaa gtccgcttgc ccggagtaca tacccgaatg    960
accattgccg aattatcgga aaagatactg gatgaaatgc agccgtatat gagcttgatg   1020
atgaattag                                                           1029
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<210> 3680
<211> 318
<212> DNA
<213> B.fragilis

<400> 3680

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gaaaataaaa tgaaaacaag aatgaaaatt acgattgcgt tcgtcgcagt gatggttctg     60
tcgtttactg gttataatgt gtataaaaca caaaaagcaa tccagttgtc agatgtagct    120
atggcaaatg tagaagcatt ggctgatggc gaaggaacta atgccggcta ttgttatttg    180
gaagatactt ggagtacaaa aagaggttat aaatattttt gcgatagtaa aactgataaa    240
aatacaatct atccatgtcc atcttcaatg gagtctgggt ggtatgatga taataagcag    300
gatcggtgta ctaaataa                                                  318
```

<210> 3681
<211> 942
<212> DNA
<213> B.fragilis

<400> 3681

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gaaacaaaga tgaacaaaga aatagaaact ctactgagcg aacagctctc ctcttgggag     60
acggcacaaa acaattacgc tgtcctgaaa cgggtacgaa taaaagatgt gaaagtgaac    120
ggttgcctgt acagaataca gttcaacccg gcacgtattg tttcttctgc tgccaaagta    180
gatgataaat cgattcaaga gcgtaaatgc ttcttgtgtc cggccaatct tccaccgatg    240
caaaaaggca ttcctttcgg agaacactac cagatattgg tcaacccatt tcctatcttt    300
cccaagcact tgacagttcc cgagctacaa catgttgaac agcgtatctt acatcgcttt    360
agtgatatgc tcgacctggc tacttatgcc gaagattata taatcttcta caatggtccc    420
caatgtggtg catcggctcc cgaccatctg cattttcaag caggtaataa aggttttcta    480
cctatcgaac aagagtggaa agagaaaaga ggagagaaag taatcacctg taaagatgct    540
actctttggg cactaaacga ttaccccgt gcaactctgg taattgaggc gggaagtaaa    600
gaaacagcta tcatgttgtt caataccgta taccaggcca tgccctcaac atcgggtgaa    660
gatgagccta tgatgaatgt attggtatgg aaagaacaga aaaattggat tgtctgcatc    720
tttccccgca acaaacaccg tccctcctgc tacacagccg aaggggatac caatatcctg    780
atcagccctg catcagtaga catggggggga gtgttcatca ctcctcaaga aaaggatttt    840
gaaaaaatta cagcaaatga tattgccgac attctcggtg aagtatgcct gagaccggca    900
gccttccgca tattgataga acgcataaaa caacaattat ga                       942
```

<210> 3682
<211> 750
<212> DNA
<213> B.fragilis

<400> 3682

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aaagctgttg ttgatgtatg ccaatccgtt gaccaactat ttggccgctc gtcaatgaga     60
atatggacgt tacatatcgt cctgtctgta ttgtttttccg tcttcctgtt ttcctgtaac    120
gaagatgatg gtgctcctta cccttccgtg aggttggagt ttctgactgc agagtcggga    180
gcagacggtc ggttgcaaac gttggttacg gataagggag aacgtctggt cgtggcggag    240
gaccgcactg aatcggagct gttacccaat tcctctagcc gtgtggtgag caattacgaa    300
gtgctttcgt cggtaggagg gcggaaagag atacgcattt atgcattagc taatacggtt    360
tctccggttc cgctgcctgc cggagagttc cggaatggct tgaaattcga tccggttgat    420
```

```
atgctcagta tctggatggg gcgtgattat ctgaatatga ctctctctat ccgggcacag    480
aatgcgcggc atacgtttca tttcattcac gagtctgtgg agcgggatgc tgtaaccgga    540
aagctgaaag tccatttaat gctctatcat gacgatgggg gagatgtgga ggcttatgcc    600
aagcgggctt atgtctcggt accgctgagg cagtacacgt ccgatatcgg ggaatcagcg    660
atcatttatt ttaatttttca tacgtatgac ggggaggtgc agacctatca gtttgaatac    720
gtacccagtc acttaaccat taattactaa                                     750
```

<210> 3683
<211> 495
<212> DNA
<213> B.fragilis

<400> 3683
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aaagtatatg ttatcttaca attcgataga ttttctcgct ttaaacgtgc aaatatagaa    60
aatgttcctt atatttgcga ttcatctgta atttatttag gtatgctatc gtatattaag    120
aaatatcccg tatcgctctt tatcattctt gcggtcatct atctgtcgtt cttcaaacct    180
ccttcaacgg agattagtaa aattcctaat atcgataagg tcgttcatat ttgtatgtac    240
tttggcatgt ccggtatgct atggctggag ttttacgggg cacaccgtag agaccacact    300
ccggtgtggc atgcttgggt aggagcattc atttgtccgg tgttgttcag cggatgtgta    360
gaattgttgc aggaatattg tacgacctat cgtgggggag actggatgga ctttgcagcc    420
aataccacag gtgcggtatt ggccagtctg ataggatatt ttattatccg tccacgtata    480
ttaagtaaaa agtag                                                     495
```

<210> 3684
<211> 192
<212> DNA
<213> B.fragilis

<400> 3684
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atacttcgtg tgggtgtaca tcttgcttat agcaaggagc ctgtgtcttc ggggaaatct    60
gccgatattc aggttactta ccgtgcagag catcccgaac attttgagaa gaccattact    120
gtatattgta atacttccac ctctccaata cgtttgaaga ttcggggtaa tgcagttgat    180
aaagaaaact aa                                                        192
```

<210> 3685
<211> 972
<212> DNA
<213> B.fragilis

<400> 3685
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caaaatagct ttatctttgt tatatataaa cagttaaaag gaaataacaa ctttatgatc    60
gcattcagag atataacgat ccaagacaag gataccatca cagcctacac gatgaatagt    120
tgccgtcgca actgcgacct ctctttttcc aacttatgca gttggcggtt cttgtatcac    180
accaagtttg ccattatcaa taactttctg gttttcaaat tctgggccgg cgatgaattg    240
gcctatatga tgccggttgg tgaaggcaat cttgaagaag tactgaacga actgattgaa    300
gatgcccgac aggagggtga acctttctgc atgttgggag tctgctcatg tatgcgcgaa    360
gatctcgagg ccattatgcc cggtcagttt ggctttacgg ttgaccgtga ttatgccgat    420
tatatttatt tacgtagtga tctcgcaaca ctgaaaggaa aaaaattcca gtccaaacgg    480
aatcacatta acaaattccg caatacatat cctgactatg agtattctcc gatcaccaaa    540
gaccgaatac aggaatgcct ggagttagaa gccaaatggt gcaaagccaa tgactgcgac    600
caacaggaag ggaccggaaa cgagcgacgt gccctgatct acgccctcaa tcatttcgaa    660
gagttaggac tgacgggagg tatcctgcac gtcaatggac agattgtagc cttcactttc    720
ggcatgccga tcaataaaga aactttcggt gtacatgtag aaaaagcaga taccagcatc    780
gatggcgctt atgccatgat caattacgaa tttgccaatc acatccccga acaatatatt    840
tacatcaaca gagaagaaga tttaggaata gaagggttac gcaaagccaa gctttcgtac    900
cacccggaaa ctatttttgga gaaatatatg gcttgcctga agagcagcc tgtagaaatg    960
ataaaatggt ag                                                        972
```

<210> 3686

<211> 1368
<212> DNA
<213> B.fragilis

<400> 3686
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ggcgtcctga cgacggtaac gtttaccgat actgtctttt tcatcatact ggcaatggaa 120
gtggaactta agattgtcaa tgatctcacg agccttttca ggcagtccgt ctttctttac 180
caacggcatt acagccagtt tcaccggtgc caatgcagca ggcaatttca atacaacgcg 240
gctttcacca ttttccagtt gctcttcgca ataagcagcc gacataatac tgaggaacat 300
acgatcaaca ccgatcgacg tttcgattac gtacggagta tacgattcgt tcagttccgg 360
atcgaaatac ttaatgctct ttcccgaaaa tttttcgtgc tgagaaaggt cgaaattcgt 420
acgggagtga ataccttcta cttctttgaa accaaatggc atcaagaact caatgtcagt 480
agcggcgttt gcatagtgag ccaatttatc gtgatcgtgg aaacgataat gatcgtcacc 540
aaagcccagt gccttgtgcc acttcaaacg aatttctttc catttcttga aatattccaa 600
ttcgctgccc ggacgaacaa agaactgcat ctccatctgt tcgaactcac gcatacggaa 660
gatgaactga cgggctacaa tctcgttacg gaaagcttta ccgatctgag cgataccgaa 720
aggaactttc atgcggccgg tcgtctgtac gttcagataa ttgacaaaga taccctgtgc 780
cgtctccgga cgaagataga ttttcatcga accatcggca gtagaaccca tatcggtaga 840
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tatttcttcg tcaacaatga tctgacggag ctcttccaga ttgttatcgt tcagcgcttt 960
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gctgcggaac tgagcttcgt cgaaagcttc accaaatctt ttggcagctt tggccacctc 1080
tttattaatc ttatcatcgt acttagccaa ttgatcttca atcagcacat cggcacggta 1140
gcgtttttta gagtctttat tatcaatcaa cggatcgtta aatgcatcca catgtccgga 1200
agccttccag atggtagggt gcataaagat tgcagagtca ataccgacaa tgttttcgtg 1260
cagcaacacc atgctgtccc accagtattt tttaatattg tttttcagtt caacacccat 1320
ctgtccgtag tcatacaccg cgcccagtcc gtcgtagata tcgcttga 1368

<210> 3687
<211> 339
<212> DNA
<213> B.fragilis

<400> 3687
gagcgcggct tctccacttt cgatgttttc aggcttcttt ccggaagttt ggtaaagatt 60
tctgtagaat ggttgaattt gtcttatcgt aggggacagg gaggtcatag agtttttctc 120
tcttttagat atgcatatat catagttcca atctctgtag tctttgtgct ttggggaggg 180
atgaaaggtg gcaataaaat agaactccct gcattccaac cggatattcc ggcagaatgc 240
agggaggctg tgttaatgag tctgtgtata cttatgcttt cacacgacct acgtaagaac 300
cgtcacgagt atcgatctcg attgtttcgc cttcactga 339

<210> 3688
<211> 195
<212> DNA
<213> B.fragilis

<400> 3688
ggtaggggct tcttaataat cctgacaggg ctgatttatt ttcttacact taccggatat 60
tactttaata acaagtttca agacgtgggt acgatgaaaa gacttttcta tatacttcaa 120
ccccaccttt ttatcttctg gagaatattt atcaagcaga agttccaatg cctttcgctt 180
ctcagtttct tctaa
195

<210> 3689
<211> 189
<212> DNA
<213> B.fragilis

<400> 3689

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gcaaagagag tactacataa taagacgact atgagtagga tctttttcat aaaaatagta      60
ttaggaggaa gtttttgttg tagcaaagat actttttatt ttaatatcaa aaacaattat     120
ttagaaatat tttatattat aattgataat ttacagattg gttgttacag agtaaaactt     180
tttagctaa                                                             189


<210> 3690
<211> 507
<212> DNA
<213> B.fragilis

<400> 3690

tctgttctat taatcatcgt gctgtatgcc gtaggtatga cagcccaagc acaaaagttt      60
gccctgatcg atatggagta tatcgtgaag aacattccgg cttacgaacg tgccaacgaa     120
caattgagcc aggcaaccaa acagtggcag ggtgaagtcg aagtattagc caaagaggca     180
cgaacgatgt ttaaggacta tctagctgca tatgctaaac tgacggcggc acaaaagacc     240
cagatagaag atgccgtcgt agaaaaagaa agagttgctt cacagcttga acgcgaatgc     300
tttggtcatg aaggtgaact tttttaagaaa agagaagagt tgatgaagcc tattctagat     360
gaaatataca atgcggtaaa agctgtagca gaggaaaacg gttatgcagt agtggtagac     420
agagcatctg cttcaagcat tatttttgcc actccccgca ttgatgtaag caatgaagtg     480
ctggcgaaat taggatattc aaattaa                                          507


<210> 3691
<211> 1344
<212> DNA
<213> B.fragilis

<400> 3691

cttttcatat tcgtcacgca gtttcttctc ttgctcccag gtgataggaa gtacagacca      60
gaagcccatc tcttcggaca gcagattctt aatgtcttcc caagctacat gattgttctt     120
agctttgcgc aaatcactga tcttttttaga gagtacttcg gcagatgctt tctggttctc     180
aagtgctttg agattcaagg catactttcc agttcccaat gcgatacctc ctgtttcatg     240
gtcggcagtt accacaatca aagtttcttt cgggtgtttc ttgtaaaact cataagcaac     300
tttgatggca ttatccatat ccgccacttc gtggaacacc gtagcggcat cattcccgtg     360
acaagcccag tctatcttac ccccttctac catcagaaag aaacctttgt ttttgccttt     420
agtcaaaaag tcaatagcgc tttctgtaat ctgtgccaga gtcaggtctc cttctttact     480
atcgatagca taaggcaaag agcccgtatc ggcaccttct tcttgaatca atatcatctt     540
acctgccgca gcagctttgg ctttataatc gttatcccca cgagcaatgg tgtaaccggc     600
ttcttcaaac atcgggaaaa tgctcggagc ttctttctta tcataagtag tggttggttt     660
caggaaaccg gcaccggcat aaaaatcaaa acctgcttta ggaagatcgg tagctatttc     720
ataatacata ttccgatccg gctgatgtgc gtagaaagca gcaggagtag catgatcgac     780
actgacactg gtagtaactc ccacccttt accggctttc tttgctttct cagcaactgt     840
ctgcaaagga ttcttctgat catccatccc aatggaacca ttataagtct tttcgccggt     900
ggaaagagca gttcccgcag ccgaagaatc agtcacggaa ttagtggcag agaaagtagt     960
agccattgtc cccaccggga actgtgtaaa aagcaaaggc tctacaccaa tgcggccctt    1020
ctggatttcg gcacgataca tttccgtacc attcacttga ttgacaccca ttccatcacc    1080
aatgaaatag aaaacatatt ttgcctgagc attggctata actgccacac agacaaaaag    1140
aaagaaataa aaaagtcgtt tcattcttgt actattttaa gtttattcga gttagtgata    1200
gcaaagataa aaattttaaa aagaagaaaa ggagaaagag atatgaatat tctgttaaat    1260
agatcaccga gcatcaatta cccttcaacc caaactgcca tctctaacct gcctcatata    1320
aaaaagccgg aaaacagaga gtag                                           1344


<210> 3692
<211> 1215
<212> DNA
<213> B.fragilis

<400> 3692

aaagtatctt tgctacaaca aaaacttcct cctaatacta tttttatgaa aaagatccta      60
ctcatagtcg tcttattatg tagtactctc tttgctcaag cacaaaagag cgatgtaatt     120
```

```
ataggtgctg agcagactaa agcatatttt ccaattctaa aaaataaacg aattgctata   180
ttttccaatc acaccggaat ggtgggaaat aagcacttgt tggatatatt attggaaaac   240
aactttaatg tagttgcaat ttttcacca gaacatggtt ccgtggaaa tgctgatgcc    300
ggcgaacatg tatccagtac aatcgattca aaaacaggag tacccattct ttctctttac   360
aacggaaagt cgaagaaacc gagtgaagcc tccatgaaaa agttcgatat attgattgta   420
gacatacaag atgtgggggtt acgcttctac acttattata tatctatggt gcgtttgatg  480
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cattatgttg acggaccaat attggatatg aaatataaat cgggagtagg cggattacct   600
atccccattg tacacggaat gacactaggc gaacttgcct tgatggtcaa tggcgaacga   660
tggctaccct cttcacgaat ttgcgacgtg accgtcattc cttgtaagaa ctatacacac   720
cagacaatgt atcgcctgcc cattcctcct tcgcctaact taccgaacat gaaagcgatt   780
tatctatacc cttccatctg tcttttcgaa gggactccag taagcttggg acgtggcacc   840
actctacctt ttcaagtata cggccatcct aatatgactg gatacaatta caatttcact   900
ccccgtagta ttccaggagc aaaaaatccg ccgcaactta acaaattatg ccacggagta   960
aacttgagta atcttagtga cgaagaaatt tggaaaaaag ggataaactt agactactta  1020
attgacgcct atcataatct gaatatggga gatcgttttt tcagaccttt ttttgaatta  1080
ctggtcggta ccgactatgt acgtaaaatg atagaaggag gtaaaagtgc tgatgaaata  1140
aaagcaagat ggaaaagaga tgtcgaaagg ttcaagatac aacgaaagcc ttatctactc  1200
tatcaagaca actga                                                   1215
```

```
<210> 3693
<211> 1485
<212> DNA
<213> B.fragilis

<400> 3693
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ggcttctttg tgggtaaccg caaatcagct tggtatgtag tggctttcgc catgatcggc   180
tccagcatat caggagttac ttttgtatca gttccgggta tggtaggcat cagtaatttt   240
tcatatctac agatggtatt gggatttgta accggacaaa ttattatcgc ctttgttctg   300
ataccctat tctaccggat gaaccttgta tctatttatg aatacttaga aaaccgtttc    360
ggtacctctt cctataaaac aggcgcatgg ttcttcttca tttccaaaat attgggagca   420
gccgtacgtt tatacctcgt atgtctcaca ttgcaacttc tggtttttga acctttccac   480
atgcctttca tcatgaatgt aattctcact gtggcattgg tttggctcta cacattccgc   540
ggaggagtta aatcgttgat ctggaccgat tcactgaaaa cattctgtct gatagtatct   600
gttgtattat gcatttacta catttccact gatcttaagc tcagtttcac agaaatgttt   660
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cgttacttct tcaagcagtt tttggccggt gtgtttacaa tgatagctat gacaggactc   780
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ttccctatga tcgctacagg agggtatttt cctatcatcg taggcatctt gttcattatt  1020
ggactgattt catccgctta ttctgcggcc ggatcggcct taacagcact gacaacctcg  1080
ttcactgtag atatcttggg aatcaaagga aagacggaag acactgtacg aaaaacacgt  1140
aagaaggtac atgtcggcat ggccatagtc atgggaattg tcattttcat attcaactta  1200
ctgaataaca ccagtgtcat cgatgctgtt tatatccttg ccagttatac ctatggcccc  1260
atcctgggat tgtttgcttt tggcattctc acaaaaagac aagtacgcga tcgatacatc  1320
ccattagtat ctatcctttc acccatcctc tgcttcattt tacaaaaaaa ttcggagact  1380
tggtttcacg gctatcaatt cagttatgag ctattgatat tcaatgcctt gtttactttt  1440
ataggtctgt gctttttgat taaaaaaaca attaacttaa cataa                  1485
```

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<210> 3694
<211> 567
<212> DNA
<213> B.fragilis

<400> 3694
tttcatacat ttgcacccga taacttaaaa gtaatcattc aaataaataa taaaactatg   60
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cttaaaaaaa ttgcactttt aatgatgtta atactcccga tgggcgtatt tgcacaaaat    120
cttaaattcg gtcacatcaa tgcgatggaa attgtttcgg ccatgccgga atataccaaa    180
gcacaatctg agttacaagc attgaacaaa caactcggac aagacttaca gagatctcag    240
gaagaattca gcaagaaata ccaggaattc atgcagcaaa aagactctct tcctgctgtc    300
attgcagaaa gaagacaaaa agagttggaa gacatgatgc agagacaaga acaattccag    360
gctaaggctc agcaggatat ggaaaaagcc aacaatgacc tgatggctcc ggtatataag    420
aagctggatg acgctatcaa agcagtaggt gcagcagaag gtgttatcta cattttcgat    480
atggcacgta ctccgatacc ttacgtaaac gaagctcaaa gcattaacct gactccgaaa    540
gtaaaaaccc aattgggcat caaataa                                        567
```

<210> 3695
<211> 1566
<212> DNA
<213> B.fragilis

<400> 3695

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atgattaaat ttgtaaataa gacgatggca ccagaagatg tttttaaaaa agtagtatca     60
cattgcaaag aatacggttt tgtgttcccc tcaagcgata tctacgacgg actgggcgcg    120
gtgtatgact acggacagat gggtgttgaa ctgaaaaaca atattaaaaa atactggtgg    180
gacagcatgg tgttgctgca cgaaaacatt gtcggtattg actctgcaat ctttatgcac    240
cctaccatct ggaaggcttc cggacatgtg gatgcattta acgatccgtt gattgataat    300
aaagactcta aaaaacgcta ccgtgccgat gtgctgattg aagatcaatt ggctaagtac    360
gatgataaga ttaataaaga ggtggccaaa gctgccaaaa gatttggtga agctttcgac    420
gaagctcagt tccgcagcac caatgggcgt gttcttgagc atcaggcaaa gcgtgatgca    480
ttgcacgaac gtttcgcaaa agcgctgaac gataacaatc tggaagagct ccgtcagatc    540
attgttgacg aagaaatagc ttgcccgatt tccggtacta agaattggac agaagttcgt    600
cagttcaatc tgatgttctc taccgatatg ggttctactg ccgatggttc gatgaaaatc    660
tatcttcgtc cggagacggc acagggtatc tttgtcaatt atctgaacgt acagacgacc    720
ggccgcatga aagttccttt cggtatcgct cagatcggta aagctttccg taacgagatt    780
gtagcccgtc agttcatctt ccgtatgcgt gagttcgaac agatggagat gcagttcttt    840
gttcgtccgg gcagcgaatt ggaatatttc aagaaatgga agaaattcg tttgaagtgg    900
cacaaggcac tgggctttgg tgacgatcat tatcgtttcc acgatcacga taaattggct    960
cactatgcaa acgccgctac tgacattgag ttcttgatgc catttggttt caaagaagta   1020
gaaggtattc actcccgtac gaatttcgac ctttctcagc acgaaaaatt ttcgggaaag   1080
agcattaagt atttcgatcc ggaactgaac gaatcgtata ctccgtacgt aatcgaaacg   1140
tcgatcggtg ttgatcgtat gttcctcagt attatgtcgg ctgcttattg cgaagagcaa   1200
ctggaaaatg gtgaaagccg cgttgtattg aaattgcctg ctgcattggc accggtgaaa   1260
ctggctgtaa tgccgttggt aaagaaagac ggactgcctg aaaaggctcg tgagatcatt   1320
gacaatctta agttccactt ccattgccag tatgatgaaa aagacagtat cggtaaacgt   1380
taccgtcgtc aggacgccat cggtactccg tactgtgtga ctgttgacca tcagacattg   1440
gaagacaact gtgtgacatt acgtaaccgc gacactatgg agcaggaacg tgtggcaatc   1500
tctgaattga ataatatcat tgccgaccgg gtaagtatta cctcgttgtt gaaaacaatc   1560
caataa                                                              1566
```

<210> 3696
<211> 1074
<212> DNA
<213> B.fragilis

<400> 3696

```
acaatgaaat ttatctatag tatcttattt gctttacttt ggatagggt tacaattact     60
tttggatcct atctttatcg tatgggtctg cctattgtaa atgcaagtgc acaaaaactc    120
ttgttgcgta caattgatga agacttggaa tgtagattcc gaaaattgaa acccaatcag    180
gcgtacgtta ccggaaagaa acatacaaag aataagaaag taacccttac agataagagc    240
gggactcaca atgtacgtca atttgccatt gatactgttt atacggatac atcttttgtg    300
catagagtta aacaatctta ccttatagag cgaaactcta ttaatgtgga ttctctgaat    360
cagaaatggc agttgaaact tcgtatggat ggaatctgtg ctaataccgg aataaaacta    420
acaaattctc taagaacgg agagcggata tcggcatcga gtgggctaaa tgaacccgat    480
tgttttttat tagcctatag tacaggggtc ggttatggta taaaaatgga tgctttata    540
```

```
agaccttttt gggcgaccgt tgttttaaaa gcgcattgga ataatatctg gacttggaac    600
tatgttcttt tttcactgat cttttgtttg ttttatgttc cgggtgttcg tcttttttctt   660
gttcaagttt tatctaagtt cagaatagta gataatcatg ttaaatcgtc gcaaccgctt    720
gttcaacaaa aaagtgaatt tgtttgggag gtcaatggac ttacatttga ttatctgcag    780
aggagtatca cttatcataa tcagacttgt atactccgaa aacaagttgt tgaggtattg    840
ctggcatttc ttaaagtacc cggccatttg ctgttgaatg aagatttgaa aaaactattc    900
tggaaagaat tagaggatgt agattcttgt atggaacgca ggaaccgact gattactgat    960
ttacgtactg atttaaggaa aataggggct aatcttggtg ttactttggt aaatggaggc   1020
tatcaactcc actttcgttc agaaaatagt aagaaatcag tgaaaaatca gtga          1074
```

<210> 3697
<211> 591
<212> DNA
<213> B.fragilis

<400> 3697

```
cttctttctt caccacggga ggcatccgcg gaggcaaaaa gaaaatggat aaattctatc     60
cgagaagttt caacatgggt gtcccgccgg gaggtttatc aggcattagg acgtttctcc    120
aatatgcgtt tcggcgaaca catcgatttc agtatccgca tatccaaggg aggataccaa    180
tgccgtctct ttcccgatgc ctgggtgtac cacaaacgac gtacggattt taagaaattc    240
ttcaagcaag tgcacaactc cggtattgca cgtatcaatc tctacaaaaa atatcccgaa    300
tcgttgaaag tcgtccattt gctgccggtt gtattcacgt caggagttgc acttctacta    360
ttatgcactc ccttttgctt gttcaacctc gtcccgattc tgctttatgc cttactggtc    420
tgcctggatt ctgcgctgca aaacaaaagc ttacgcatcg gcatctattc catcgctgct   480
tctttcatcc aacttatcgg atacggcaca ggattctggc gtgcctggtg ggaacgctgt   540
atactgggaa ggaacgaatt tgaggctttc cgcaagaact tctataaata a             591
```

<210> 3698
<211> 783
<212> DNA
<213> B.fragilis

<400> 3698

```
acgatccatt cttacagtat gaaaaacgta tatttccttt ctgatgccca cttggggtca     60
cgtgccatag agcatggacg tacgcaggag cggcgcctgg tcaattttct cgacagcatt    120
aagcacaaag ctgccgcagt atatctgctg ggcgatatgt tcgactttg gtatgagttc     180
cgtttggttg ttcccaaagg ttatacccgt tttttaggga aactctccga actgactgat    240
atgggagtag aggtgcattt ctttacggga aatcatgata tctggtgcgg cgactatctg    300
actaaggagt gtggggtgac gattcatcgt gaaccggtta ccactgagat ttatggaaaa    360
gagttctacc tggcacatgg tgacgggctg ggagatccgg ataaaaagtt caagttgcta    420
cgtactatgt tccatagtcg tacgttacag actttgttct ctgcgattca tccccgatgg    480
agcattgact tgggattgaa ttgggccaaa cacagccggc tgaagcgtga gggtggaaaa    540
gaaccggatt atatgggaga aaataaagag tttctggtgc tttataccaa ggaatacttg    600
aaaagtcatc ctaatattaa cttctttatt tacggtcatc gccatatcga acttgacctg    660
atgttgagtg ctacggcgcg aatacttatc ttgggggact ggatcaactt cttctcttat    720
gctgtgttcg atggtgagaa cctgtttctt gagaactata ttgaaggaga aacccaactt    780
taa                                                                    783
```

<210> 3699
<211> 372
<212> DNA
<213> B.fragilis

<400> 3699

```
gcgatgcact cctgtctgat ttgtatagga agcaattata accggaagga gaatctcctt     60
ctggctcgca ggagactgac ggctctgttc ccctctatcc gttttacggg tgagcaggag    120
acaaggccgt tattctttcg taacccggca ctattctcta accaaatggc ccgtttctat    180
accgatgcag atgctgaacg ggtagtgaag gagttgaaaa caatcgaaag agaggccggc    240
agggagcagg aagataaaaa gaaagaaaag gtatgcctgg atattgatct gcttgttttt    300
```

```
gatgaccgga tcttgaggcc ggaagatctg caaagagaat atgttcgcaa aggacttgaa      360
gaattgaagt ag                                                           372
```

<210> 3700
<211> 1011
<212> DNA
<213> B.fragilis

<400> 3700
```
ggcttttcat ccggacttgt tgcccgatta tacgcctgtc tattacgaac gactcaatta       60
atctgtccga tgaaacgacc gacaatacct cttatgctgc ttatagccgc atctattttt      120
gtcttttttc tgctgaatct gttgttgggc tcggtttcca ttcccatcgg ttcggtatgg      180
aacatacttt ggggcggaac ggatgaatcc gttatctggc aaaatatcat ctggaagtca      240
cgggtaccgc aggctttgac cgctttggtg gcaggtgccg gactttctat cagtggcttg      300
cagatgcaga ccatatttcg taatccgctg gcaggacctt ctgtacttgg tatcagttcc      360
ggtgccagcc tgggagtggc tttcgtggta ttgttgtccg gagcatttgg aggcgtggca      420
cttagcaaat tgggatatat gggcgaggtg gctctttcgt tggcggccgt tatcggtgcc      480
ctgtcggtga tggcacttat tgtgtatgta tcccaaaaag tgaaaggaaa tgtaactttg      540
ttgattatcg gtgtgatgat tggctatgtg gcgagtgccg ttatcggtgt actcaaatat      600
tttagtgtgg aagaagacat ccgcgcctac gtcatttggg ggttgggtag ctttgcccgc      660
gtctccggtg atcagatgac cttgttcgtc tgtatcatgg ttgtgctgat tccgctctct      720
ttcctgttga ttaaaaccat gaatctgatg ctgcttggcg atgggtatgc acgtaacttg      780
ggattgaaca tcaggcgtgc ccgcctggtt ggtcatttca tgttcgggag tgcttgtagc      840
catcgtgacc gcttattgcg gaccgattat gttcattggt ttggcggttc ctcatctttg      900
ccgtgccatc tttcatacct cggatcaccg catcctgatg ccggccactt tgctggcagg      960
tgcttcgttg ctttggtat gcaatctggt tgcccgcatg ccgggctttg a                1011
```

<210> 3701
<211> 213
<212> DNA
<213> B.fragilis

<400> 3701
```
ttggcaacac catcggcagt ccgcacgaca aagaatgttt tatccgccgg tttcggattg       60
acgatgattt caaaatcagc cgcaactgta gggggatttt ttttggcaga tatgatgtta      120
gtgggtgtaa ataccccgct gacactgata aaagttgctg catccacatt ggatgtaccc      180
gaaatatact ggaatgcatt ttccgtagca taa                                   213
```

<210> 3702
<211> 1053
<212> DNA
<213> B.fragilis

<400> 3702
```
tgcaacgcac cgtcatcaaa gggattgttc gtttcgatag gcgcaacaaa agttacagat       60
tacttgttta cagataaaaa tataaaaaca atgattatgc gtaatataaa tacagattta      120
atagatgcaa tgaaaatata cttacccaag gggaataatc ttgcaaatgc gctgatggat      180
attctttacc ttggcaaaga agctacttac aggcggttgc ggggtgaagt accgttcact      240
tttgccgaag ttgccaccat atctcaacac atgggcatct ctcttgataa aatagtaggg      300
gccgatttga atgacaacgc tattgttaat ctgaatatgt tgcaatgcca acgccctgcg      360
gagacctatt attctattat cgattcgtat ataaagttgt tcggtcaatt gattgaacgg      420
gaaagttcgg aaagaagcac ctcttcaaat accgttccac aaaccctgta tttaaagtat      480
gaagccttat ccaaattcca acttttcaaa tggatttacc agcatgaaag tacatatgca      540
ggcagacatt atgaagattt ggagattcca gaaaaattga ttgacaagca aaaagaattt      600
gtaaatctgt ctcagctatt ccagtcaacc aattatatat gggataaaga gatatttatc      660
agattggtca atgaggtcaa gtttttctta aatatcaatc tgatatcaga agacagtgta      720
aaaagaataa aaaaggaatt attgatattg ctgaatgaat ggaaaaaaat ttcagctcag      780
ggaaaatatt catccggaaa agatgtgaaa atatatatat ccgatatcaa ttttgagtct      840
acatatagtt atgtagaaac agatatttac catcaatgcc tgataggggt cttttccatt      900
```

```
aattccataa cttcgaaaga tgattttcta tttcagcact tgaagctatg gatacagtca    960
ttaaagaagt attcaacttt gatttcgcag agtggtgagg ttcagcgaat ccatttcttt   1020
aaccggcaac aagaactggt gaaaagttta tga                                1053
```

<210> 3703
<211> 210
<212> DNA
<213> B.fragilis

<400> 3703
```
gctacggaac catccttcat tgcgagtgca aaggtagtgc tttttctgaa atctccaaaa     60
aaatctgtgt cttttttttac ttacattttc acgtatatat tctataatcc taaaggtaag    120
ctagttaagt accaaataaa aagtaacatt gtccagccta tcagtatata taccgaatat    180
cgccaagtgt attttaagag tgaaccataa                                     210
```

<210> 3704
<211> 598
<212> DNA
<213> B.fragilis

<220>
<221> unsure
<222> (22),(31)
<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 3704
```
tagagagccc gtagtattcc anttgcaagg ncaagacaaa cttctccggc aagcagcatt     60
cgacctgttg atcctggata ttatcatgcc taagatgatc ggtctggagc tatgccggct    120
ttatcggcat caatacggtt atctcacccc ggttataatg ttgactgcat tgggcaccac    180
ggaggatatc gtgaaagggc tcgattcggg ggcggatgac tatttggtga aaccattcag    240
ctttcaggaa ctggaggcgc gcatcaaggc catcctgcgc agagggcggg aagactctgt    300
ccagcagctg gtatgtgatg atctggtgct taactgcaac acccgccgtg ccagacgcaa    360
ggaggtggag atagaactca ctgttaagga gtaccgcttg ctggagtatt tcatgaccca    420
tcaaggcatg gtgctttcgc gcctgacatt attgaaagat gtatgggata agaatttcga    480
tacgaatacc aatgtggtag atgtttatgt gaactatctt cgtggtaaaa tagataagga    540
gcatgacaag aaattgattc atacggtggt aggttcggga tatatcatgt atgcttaa     598
```

<210> 3705
<211> 273
<212> DNA
<213> B.fragilis

<400> 3705
```
agaaataagt tcttatctga agtcatagag attctgccgg gtctgttcaa aatcattttg     60
ccggaatcgg tgccacaagg cctgtctcta tttctaaaag aatccacaat tcagcctatc    120
gatccccatg ccggaaattt ggcttccaac caacagatgt gtttaaatat aggacgaaaa    180
gaatgttttt gctcacgttc tttgtcatct gaaagatttt ccataacttg caacttttat    240
cggttaagct tgtacgatgt cccattatgt taa                                 273
```

<210> 3706
<211> 183
<212> DNA
<213> B.fragilis

<400> 3706
```
acaacaacca cccggtttga gataggcaac tatttgttcg actctcttgc acaaacactg     60
acacatgccg gattgaaaca tgagctatct catcgggagt cggagatcct gagagcgact    120
ttgcgaaaat cagaatcaag tggtcaacac acagaatgta ttactcgacc tatggggaga    180
tga                                                                  183
```

<210> 3707
<211> 711
<212> DNA
<213> B.fragilis

<400> 3707
```
caaatgataa ctacacatcc catacgtttc gtatctttag gccccggcga accggatctg      60
attacgttga aaggactcaa agcactgcaa ggagccgact gcatcttctg tccggccacc     120
atgactcaag acggcaagtc ctcttcacgg gcactctcca tcctgaacac tctcggattc     180
tcggacaccg tacagtgttt ccggcttcct atggacaagg acaggacact ggcattaaga     240
tcttatgaag ctgtatatga aagcagcaaa atactccgtg cagagggaca aaacgtcgta     300
attgtggccg aaggagatgc gggtctttac tcttccatcc actacatcta cgacaagctg     360
caacaagacg acatccctgt tgaacagatt gccggtattc ccgcttttat tgcttccgga     420
gcgatggcgg gcctgcacat cgtcagtcag gaagagcggc tgatcgtgat accgggtcac     480
gtcaccgcca aagaactgga cgactacctg aaacatcaga cggtagtggt cataatgaag     540
ctatcgcaat gtatagacga ggtacaccaa tgtataatta accatccgga ataccaatac     600
cactactttg aaaatgtagg gaccgagaag gaatactact cttgctccac cgaagaactt     660
cgggaaaaaa gatatcctta tttctcggta atgattatca gattcggata a             711
```

<210> 3708
<211> 183
<212> DNA
<213> B.fragilis

<400> 3708
```
cgaggtgtaa ccttatccga atctgataat cattaccgag aaataaggat atctttttc      60
ccgaagttct tcggtggagc aagagtagta ttccttctcg gtccctacat tttcaaagta     120
gtggtattgg tattccggat ggttaattat acattggtgt acctcgtcta tacattgcga     180
tag                                                                    183
```

<210> 3709
<211> 1479
<212> DNA
<213> B.fragilis

<400> 3709
```
ttgatttgga caatctggaa gcagatgaag agtaaatggc gtatgccaca tccggcaacg      60
atgttcttcc tgtttacgct ggcagtcatc tttctatcct ggatattcga tatttatgga     120
ttaagggtgc aactaccaca gacaggagca gagattcgtg tacaaagtct gctgagtccg     180
gagggtattc gctggatgtt gcgaaatgca attactaatt tcacaggatt tgcaccattg     240
ggaatggtgc tgatagcaat gtttggtatc ggggtagctc aacattccgg ctttattgat     300
gcttgtgtcc ggcaaggggt gaagaatcga aaaaatacca ggaggatcat cctgtgggtg     360
attattcttg gattgctatc gaatatagta ggagatgcag gttatataat attgcttccg     420
atagcagcca ctttgttttta ttcggtagga ttaaatccgg tagcgggaat tattaccgca     480
tatgtttcgg tttcctgtgg ctacagtgcc aatgtagtgc tgagcaccat ggacccatta     540
attgcccgta cgacacagga agcagccatt gattccggag tatatcaggg aaatacggga     600
ccattgtgca attattattt tatgtctgtc tctacattcg ttatcggagc cataatttac     660
aggataacct gcaaacgact gattccttct ctgggacaat atgaggggaa acagatattt     720
gaaggctata aacaattgtc acgcaaagaa cgccgggcca tgacaatggc aatcgttgtg     780
ggaatgcttt atgctgcaat cattttatgg gccacttttt cttcctgggg tatcttgcgt     840
ggagtaaatg gagggctgat acgttcacca ttcattatgg ggatttttgtt cttattgtcg     900
ctgggagctg ctattatggg aatggtctat gggtttagtt ccggacgcta ccgttcggat     960
aacgatgtga tagaaggatt ggcacaaccc atgaaattat taggtggcta tctcgttatt    1020
gcctttttttg cagcccagat gtttgcttgc ctggaatatt cacatttaga taaatgtgtg    1080
gctatcatag gtgccaattt actgtcttct gtgcaggcag gtcctttatg gactttgatt    1140
ttatttatat tgttcaccgc aaccattaat ctgattatgg tttctgctac tgctaagtgg    1200
gcatttatgg catttatctt cgtaccggta tttgcacgaa tggggattga accggatatg    1260
acacaatgtg ctttccggat aggtgacagc gcaactaatg ctatcactcc attcatgttc    1320
```

```
tatatgcctt tagtgttgac ctacatgcaa cagtatgata agcaagccac ttatggttca    1380
ctcttaaaat acacttggcg atattcggta tatatactga taggctggac aatgttactt    1440
tttatttggt acttaactag cttaccttta ggattatag                          1479
```

<210> 3710
<211> 723
<212> DNA
<213> B.fragilis

<400> 3710
```
attcggatgg caagccattg tgttggctac ttcaagtatc ttgggcagca tgttggcttc      60
ttttctcgta ttacgcctgt ttttcaagaa aggaggaaag tcatgaaaag cagtctaatt     120
gttgttgcat ttttctgtat aggttgtctg gtcggaatct tcaatgattt ccagtttgac     180
atgcacaatc tttctatgta catactttat gcgttgatgt tgcaggttgg catcagtatc     240
ggaagcaata agaatctgaa atttctgatc aaaagcctac gtcccaatat gcttttagtg     300
ccgatagcta ccattgtcgg aactcttctt ttttcagctt ttgccagttt attgctgagt     360
cagtggagtg tattcgattg tatggcagtg ggaagcggat ttgcatatta ttcccttTca     420
tctattttga ttactcaatt caaggaggct tctgtaggat tacagttggc aacggaactt     480
ggtacgattg ctttgctggc caatattttt cgcgaaatga tggcattgct gggcacacca     540
ctgattagga aatatttTgg gaaactggcc cctatttctg ccgccggtgt aaattcaatg     600
gatgtattgt tgccgtccat tactcactat tcggggaagg acatgatacc tgttgccatc     660
tttcacggaa tcctcattga tatgagtgta cctttctttg tttcattgtt ctgcagttta     720
tag                                                                   723
```

<210> 3711
<211> 222
<212> DNA
<213> B.fragilis

<400> 3711
```
gtcatggtgg ccggacagaa gatgcagtcg gctccttgca gtgctttgag tcctttcaac      60
gtaatcagat ccggttcgcc ggggcctaaa gatacgaaac gtatgggatg tgtagttatc     120
atttgttatc ggtttatcat cttaatgttc tgcaaaagtg aggaaaatat ctctatgaaa     180
caagaattat taagtatctt tgaccgctgt aatttgaatt aa                        222
```

<210> 3712
<211> 492
<212> DNA
<213> B.fragilis

<400> 3712
```
gaatcacttt acaagatatt ttataaaatc atgagcgaga ataaacaagc attacaggtg      60
gccgcactga aaaatggcac tgttatcgat catatacctt cagagaaact ttttacggta     120
gtttcattgc tcggattgga acacatgacg actaatatta ctatcggatt caatttggac     180
agtaaaaaac taggtaagaa aggaatcatc aagattgccg ataaattttt ctgtgacgaa     240
gaaatcaatc gaatttccgt agtagcccct catgtgaaac tgaacatcat ccgtgattac     300
gaagtagtag aaaaaaaaga agtgcgaatg cctgacgagt taaaagctat cgtaaaatgt     360
gctaatccca aatgtatcac gaataatgaa ccgatggcta ctttatttca tgtgatcgac     420
aaagacaatt gtgttataaa atgtcattac tgcgagaaag aacaaaaaag agaagatatt     480
acaatcattt ag                                                         492
```

<210> 3713
<211> 597
<212> DNA
<213> B.fragilis

<400> 3713
```
ctcgtaacat ataaagtgaa taaaaagatg aagcaagact ggaagcccgg aactctgatt      60
tatccgttgc ctgccgtatt ggtaagttgc ggaagcgatg aaagcgaata caatatactt     120
```

```
acggtggcat ggaccggaac catttgtacc aatccgccga tgtgttacat ttctgttcgt    180
cccgaacgtc attcttatcc tattataaaa aagaatatgg aatttgtgat caatttaaca    240
acccgggata tggcattcgc aacagattgg tgtggagtac gttcagggaa ggattatcat    300
aagtttgaag aaatgaaact aaccccgggc aaatgttctg tagtggatgc acctctcatt    360
gaagaatctc ccctttgtat tgaatgccgt gtgaaagaaa tcgtatctct gggatcacat    420
gacatgttta tttctgacgt agtaaacatc cgtgcagatg atcgtcatct aaaccgggaa    480
accggaaagt tggaactggc agaagcaaat ccgcttgtat atgtacacgg aggatattat    540
aatttaggag aaaagatagg aaaattcggt tggtcagtag aaaagaaaac aaagtga       597
```

```
<210> 3714
<211> 2049
<212> DNA
<213> B.fragilis

<400> 3714
aaaaaggcgt atatttgtta cctacaaaca acaaacaata tgatgcgata tataatcctc     60
ttagtcttgt gcgcctggac cggaatagca ttggccatag attaccatgc aaaagacagt    120
cttttattac aattaaaaca aacgacaata gctgcagaac gaatcaatat ttaccgaaac    180
ctggcggaca tttgtttttga aacccctgat gaaaagacat atttgctcaa catgtataga    240
gaagcccaaa aggctggcga tacatcgggt atgctcaatg ccttaaatga tcttgtatgc    300
ggagagacaa aagaatatcg tatggattca gcatatcatt atatggaact gataaaagca    360
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acactatgca gccacaatga aacagaagaa gctatcacaa aagaattgca atttatagaa    480
gaaaagaaat ctgatgaagc atcactttac agtaaaatcg cccaagctta catcaccggt    540
ggtagccttc attacaatga catgataaag gaggcactcc cctatctgga aacagcaatg    600
aacttatcta agcaattgcc tccggaaaag caaatcttat ttgtatcgat cattgtttgg    660
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gagaatctgc aaacacaaca acaatattac aaagatcact atcaaacaca acgtcctttt    780
tataatatgg cgatacacga attacgcttt tatacatctc tattgactaa tgccatttcg    840
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tgtggtatac cggcagacaa acataaggag gttttcgaac gattctccaa gctcaatgca   1920
ttcactccgg gtaacggatt gggactttat ttgtgccaac tgatcatccg cagattgtcc   1980
ggaaagataa gcattgaccc aacatataca ggaggtacca gaataacagt gatttttacct   2040
gttcaatga                                                          2049
```

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<210> 3715
<211> 933
<212> DNA
<213> B.fragilis

<400> 3715
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```

```
gatgatggag ggctggctct caaattcagc tatgatacaa atgcagactc aagactgagc     180
actgcgcaag gtgttgatcg attggctgtt ttcatattcg atgaaaaagg acttttatc      240
tctcaggtaa acgattctat gacttcaatc aacgacgatt atgtcatgga gctgccttac     300
aaacagggca gttaccaatt tgtagcatgg ggtggctatg ataaaagtac ttatcagact     360
tctgaatgtg tgccgaggaa aacttatatc gatgatttct ttctatctgt aaaacgtcag     420
gaggacaacc gggtaaccaa tcaacccaaa ctgctctatc acggtatgca cgatatagtg     480
gagcttaaca gtaaagaaaa aacaatcgta ttgataaact tgaaacaaat gacgaatcat     540
atccgggtca ttgctcataa tttgaatcaa gatagaagtg acaacattta tatagaggat     600
aataacggta agtatggata tgattcacaa ttctccgatg atgaccggat aacctatatt     660
cccatttatg aagcatcatc ggaacaatca aatccgttga ttgccgactt caatgtaatg     720
aggctagaaa aggatagaga accccggctg cgaattgccg acaaaactgg tacaatccgc     780
tatgatgaga atcttattgg taaacttata ggcggaaatc ccaatattga ttttgagcat     840
aaccatgatt tcaccattga aatatccttc gataactaca tcccggtcat tatcaagatt     900
aatggctggg agatagttaa tgaagaaata tga                                  933
```

<210> 3716
<211> 954
<212> DNA
<213> B.fragilis

<400> 3716

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agatacctgg cagaaaaaat ctgcgcaagc ctcaattgtc ctctaggaaa catgaacatc     120
acccactttg ctgatggtga gtttgccgtt tcttacgaag agtcaattcg tggcgcacat     180
gtattcctgg ttcagtccac tttccctaat tccgacaatc tgatggaact ccttctgatg     240
attgatgcag ctaagagagc ttctgcaaag agcgttgttg cagttatccc ttacttcgga     300
tgggcacgtc aggacagaaa agataaacca cgtgtttcta tcggcgccaa gctggtagca     360
gacctgcttt cagtagcagg cattgaccgt ctgatcacaa tggatttgca cgcagaccag     420
attcagggct tcttcaatat tccggtggat cacttatatg cttcggctgt gttcctcccc     480
tatattcagt cattgaagct ggatgaactc gtgattgcaa ctcctgacgt tggtggttca     540
aagagagcaa gtacattctc caaatatctg ggtgtacctc tggtactttg taacaaatca     600
cgtgaaaaag caaatgaagt cgcttctatg cagatcattg gtgatgtaaa aggcaagaat     660
gtagtattga tagacgacat tgtcgataca gccggaacca ttaccaaagc tgccaacatc     720
atgcttgaag ccggcgccaa ctctgtacgt gccattgcca gtcactgtgt aatgtccgat     780
ccggcttcat tccgtgttca ggaatcagga ctgaccgaga tggtatttac cgacagtatt     840
ccttactcta agaaatgtgc caaagtaaaa cagttgagca ttgccgatat gtttgccgaa     900
acaatcaaac gtgtgatgaa caatgaatcc atcagctcac aatacattat ctaa          954
```

<210> 3717
<211> 285
<212> DNA
<213> B.fragilis

<400> 3717

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aaagttacac aatgcactcc ctggcaactt ttatgtataa gctgccggac agttcctctc     60
tttcacctta tattaataag tgaacgaaaa gagataaatc aaactacaaa acagggagta     120
attcagataa atccgctaaa ccaatgtaca tgcacaatgc agtgtccgta cagaatctta     180
ttttcttgca cggcattatg tatgctatat gtagtaaaca atcggttcat attattcatt     240
aattacagtg caaaggtaat acttttgcgc atattttcca aataa                     285
```

<210> 3718
<211> 1167
<212> DNA
<213> B.fragilis

<400> 3718

```
attaaaagac aaataccgat gaaacaattc ctgatcggat gcgcactgct ggcctgtatc     60
tctttagccg gttgccgtcc gaagaacaac cagaatgcaa cgatagtaac cggtgaggtg     120
tccgatacat cttctgtccg tatcacacca gtttatgcca aaggttttaa agtgacttat     180
```

```
actcctacat gccgcttggt cgatatcagc gatccgcaga aagaaggagg tgaatctttt    240
cattacgctc ttgtgcccgg agggacgaaa cctgaaaata ttcctgccgg ctatacagtg    300
atagagactc ccgtgaagag tgttatctgt atgacttcct tgcagttatc caactttatt    360
aaactggatg ctttaagtca tgtagtgggt atcacgagca cccgtcatct cttcaacaaa    420
gaaatgaacg aacgcttgaa gcagggtaaa acggctaaga taggtatcga ggggaacttt    480
gataatgaag tgatcatgag tgtgaatccc gatgtcatct tcatttctcc tttcaagcgc    540
ggcggatacg atgccatgcg tgaagtgggc attccgctgg tgccgcattt gggatacaaa    600
gagatgactc cgttgggaca ggccgaatgg attaagttta tcggactttt catcggagag    660
gaagagactg ccaaccggaa atttgcagcc atagaaaagc attataatga attgaaagaa    720
agggttgccc atgtaaagaa gcgtccggtg gtgttcagtg gagagatccg cggggggcaac   780
tggtatgccg tgggcggtaa aagttttctg gcacagctct tccgtgatgc aggtgccgat    840
tattttctga aagacgatcc ccggtcggga ggtgtcacac tcgacttcga aacagtgtac    900
agccaggcgg aaagtgccga ctattggcgt attgtcaata gtttcgacgg gactttctct    960
tatgatgtat tgaagagtga agatccgaga tatgccgatt ttcgtgcttt ccgtgagaaa   1020
ggggtgatat attgcaacat gcgtgaaaag ccgttttatg aaagtatgcc tacccaaccg    1080
gaagtgctac tggaagattt gattaaggct tttcatccgg acttgttgcc cgattatacg    1140
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```

<210> 3719
<211> 2370
<212> DNA
<213> B.fragilis

<400> 3719

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ttatctttgc aacttcgaat aaaactacgg aataaaatga ttaaaaagat agtaaaaggc    60
ctttgggttt tctttgcact gatggtgctg gcaggaattg cagtgtttgc ctctatcgct    120
tacggatgga ttggatatat gcctcctgta gaagaactgg aaaacccgaa ttacaaattt    180
gccaccgaaa ttctttcgga ggatggcaag gttttgggta cgtggtcgct tagtaaggaa    240
aatcgtgtat acacctctta taatgaactt tcacccaaca ttgtcaatgc attgatcgcc    300
acggaggacg ttcgctttac cgaacattcg ggtatcgatg ccaaagcgct gatacgtgct    360
gtggtaaagc gtggattgct gatgcagaaa aatgcaggtg gaggcagtac actttcacaa    420
cagctcgcca agcaattgtt tacggacgaa gttgccagaa atacgctgca gcgcctgttt    480
cagaagccga tagagtgggt gattgccgta aaactggaac gttattatac aaaggaagaa    540
attttgagta tgtatctcaa taaatttgac ttcctgaata atgcagtagg aattaaaacg    600
gcttcatata cctatttcgg atgcgaaccc aaagatctga aaatagaaca ggctgctacg    660
ctgatcggta tgtgtaaaaa tccttcgctt tacaatccgg tgcgcttcaa cgagcgttcg    720
cgcggacgac ggaatacagt gctagatcaa atgagaaagg ccggatatat cacagcggaa    780
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aacatttata cggatggact gaaaatttat acaactatca actcacacat gcagcgctat   1080
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atcctggaca gggctgtgaa acagacttcc cgttatcaaa cgatgaagga agccggaatt   1260
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catggtgtaa aagacactat aatgtcccca atggactcta tccgatatta taagcacttc   1380
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tctaccatta aaccgtatct gtatgcattg ctatggaaa acggattctc gccttgtgac    1560
gaaacacgta atgtagaaat cactctaatt gatgaaaatg gaaaccttg gtcacccaaa    1620
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aataactgga tttcggcata cttgatgagt aaactgaatc cgtatgcttt ggcacgtttg   1740
attcactctt tcggcgtacg caataaagaa attcaaccta cagtctctct ctgcctcggt   1800
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atccgggtgg ctccattgtt tgtgactaaa atagaggata gcgaaggcaa tgtattggct   1920
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atgttgcgtg ccgtaatcaa tgaaggtaca ggagcacgtg tccgcaggta tggaataact   2040
gccgatatgg gtggtaagac cggaacgact aaccgcaact cggacggatg gttcatggga   2100
```

```
ttcacccctt cactggtatc cggatgctgg gtaggcggtg aagaacgtga tatccatttc    2160
gatacaatga cttatggtca gggggcttct ctggcattgc ctatctggac aaaatatatg    2220
cataaggtgt atgccgacca gacattggga tatgatccga aagagacttt taatttgcct    2280
gacggatttg acccgtgcaa agacttcagt atttcaggag atagcattat agatgaaccg    2340
gaatcagggt tggacgattt gtttaattaa                                      2370
```

<210> 3720
<211> 183
<212> DNA
<213> B.fragilis

<400> 3720

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tttattactg tgctgcgcgc tgcccgtaca agcaaaagcc gatacttaca aaacacaaga    120
gactgcaagt atacaacagc aaacagtgaa gaccaccggt gttatcatcg acaacaccgg    180
tga                                                                   183
```

<210> 3721
<211> 627
<212> DNA
<213> B.fragilis

<400> 3721

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aataacatta aaacaaaatc aatggaaaat caagaaacaa aaacagaaaa gaaaatcgtg     60
aaagtgaaac ttagtgatgc aattaaaaag gcatctatcc tgaaagccgt tcttcttgct    120
tataaagata aggaactgtc ggcagagctc aaatctaaag tgatgatgac ccgtatttat    180
tacggcaaat ttcgcaagca gtttgaagag gatgtaaagg aagcccgtga ggggctgaag    240
ccggagggtt atgatacaca gcttcaggaa atagacgaac tggaaaataa ggcccgtgga    300
gataaggaca ttcgtaacct tactcctgaa atgctaaaat ctgccctcac tgaagaggaa    360
tacgacaagc atgaaacttt catgccaatt ttcaataagt atatggaaga ggtcactaac    420
ttcaaatctg agaagttgga tgaagaagtg gagatggaag aaaagaaatt cactcagaaa    480
gagttcgatg aaatcttgaa tgtcaatacc gctgagagct ataatcttga tttgtgtatg    540
ccctataacg gtaagaatat gatctttccc ggcacaatga aaagtgccga ttttatggag    600
gtactgtacg aagagtttat tgactaa                                         627
```

<210> 3722
<211> 597
<212> DNA
<213> B.fragilis

<400> 3722

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tttggggata agcatgtgga atttgccaca tgtttgtgga ataattccac aaacaaaata     60
ctcctcttat tgttacttat caaacttgaa attaaaaaga acctcattat gaaaaagctt    120
aaatttaatt tgttgacagg attgctgttg ctgatttccg tctctgtttt tgcagccggc    180
tttccacctc ccgataaagt acaggaaact tttcagaaaa tgtatcccaa agttactaca    240
gttgattggc aacgaaaggg agactatcac attgccgata tcagggtgga cggacgggaa    300
ttaaacgtct ggtttagtga taagggcaaa tggttgatga cggaggtaga tgtcgaaact    360
ctggaggctg ttcctgccgc tgtggcaaag gcctttatgc aaagtacgat ggcatctatg    420
cagctggaag atgtaagaat catcactttc cctaagcagc ggcggtaat tgtgatagaa     480
gtggaagagt ataatacaga ctctgagttt cagttgtttt atgctccgga cggcaaactg    540
ttgcagaccc ttaacgtgag cgataccgga ggagagattt acccgggatt gttttag       597
```

<210> 3723
<211> 414
<212> DNA
<213> B.fragilis

<400> 3723

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aaaaacaaaa aaatgagtag aggattacga aacaacaatc ccggtaatat tagacatgac     60
```

```
cgggataaat ggcaaggtga gattgtaccc agccaagaca gaaagtttaa gcaatttatt    120
tcgatggcat acggctatcg tgctctgatc aagttactgc aaaactaccg gaaactacat    180
aaccgacaaa ctattgctga gtttataaac agatatgcac caccttgtga aaacaataca    240
tcaggataca ttacccgtgt atgcagtgaa atgcaggtac cgtctactta tattccagac    300
atcgacgaca aagccacaat gtgtgccttt gccgcggcca tcggccaagt agaaaacgga    360
gttcccgcag tcatggcaga tattgaagcc ggatgggatt tgttaatgaa gtaa          414
```

<210> 3724
<211> 780
<212> DNA
<213> B.fragilis

<400> 3724

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atagttctcc tttttatatc gatatggatt gcttttgccg cttatggaga agacaatcat    120
aaaaaggaaa gacacccgga tgaccgcaaa ataaatgtag gaatcagggg tggattcaac    180
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ggcgttagtg tcaacatctc ccgcattttt ttcgattttc gatacgagca agggcttcac    660
aatttatcaa aatcagtaac atacgataat atagatatgg aaggtagacc ggaagtaagc    720
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```

<210> 3725
<211> 4491
<212> DNA
<213> B.fragilis

<400> 3725

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ctaaattcac gggcttatat gtaccggtat agagatctgg attcttcctg caaggctgca    180
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gtatatgacc tgacgaaaaa tgaattggaa cttttgattg ccgacatcgg attgatgaaa    360
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```

```
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caaaggtacg tctacgaaca gcatattgcc gggaacaaac ggcagaacct gataaaaaaa    1920
tcatgtctgg ccattgtgga tggaatcaat ccgtatatag accgaattat caatgaagtt    1980
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gaaagtacac cgggcaaagg cagccgtttt tacttccgac tacctcccgg agtccgtaaa    2640
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ccgatgcctg aaaaactgaa agatattccg gtagattccg taaccttagc agctgaagct    2760
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caggatggag aattggtttt aaaagccatt atggatggag aatatgttcg tttttttgttc    4260
acagacagaa gacgtgagaa gcaagtagag gaactgaatc aattattta tccgaatctg    4320
gcacgtatga cttcaggaga gaaaggtgaa ctacgaggaa ctgaatatct gatctgcaaa    4380
caaattattc gtgaccatga tgaatttgcc ggaaggcgtg gttgtcgcat taatgcagag    4440
ccggcacagg gaggaggatt cacggtctat tttacagtac ccaaaagata a            4491
```

<400> 3726

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tttattatga accggacact acaacccgaa atccaggaac tagttcaatt taatattctt    60
cctccggtgc gtactgttat gccgaatgga gtgccgttga caattatcaa cgcaggtgaa    120
caggatgtgg tacgtgtcga tattttgttt ggaggcggac gatggcaaca atcacaaaaa    180
```

```
ctgcaggcat tatttgccaa tcgcatgtta cgtgaaggat cccgaaaata tacagcggcg    240
gagatagccg aaaagttgga ttattatgga gcatggcttg aattgtccag ttcggcggaa    300
tatgcatata tcacactgta ttcgttaaat aagtattttg ccgaaacgct cgatgtactc    360
gaatcgatca taaaagaacc tctctttccg gaaaaagaac tgggtacggt aatagatgcc    420
aatattcagc aatatcaggt aaatgcatca aaagtagatt ttctggcaca tagaagttta    480
ttgagagcac tttacggaga ggagcatccg tgtggacgct atgtggaaga aacggactat    540
catcatatca ctccggcttt attacgcgag ttttatgata catattatca ttcgggaaat    600
tgctatgttt acctttccgg taaagtgacg gacgagatta cccaccgtat agaagccgct    660
ttcggtacga cacatttggg aaatcatcag caagtggcgg tcaagaaaga ttttacattt    720
gttagcatac ccgagaaacg ccttttcata gagagagaag atgcgatgca gagtgcagta    780
aagctgggta caactactat tatgaggaca catccggact atctgaaact ccgggtactg    840
atcactctgt tcggaggata ttttggaagc agactgatgt ctaatatccg ggaagagaaa    900
gggtacacgt atgggatttc ggccggaatc atgtttatcc gggcaacggt ttgctgggta    960
tcagtacaga aacaactaat gaatatgtag                                     990
```

<210> 3727
<211> 957
<212> DNA
<213> B.fragilis

<400> 3727
```
gaaattatga attcacatca agaattattc ggtggaaata ttccacaaga tgtaactgga     60
aaacaaggcg aaaacgctat cttcattgtc tacgggctga aacaatcgga taacactata    120
aaacaagtaa aagatctatg tgctaacttt tccgcactga tacgcagtat gcgtaaccga    180
tttcccgaaa tgcaattcag ttgtacgatc ggattcggag ctgatgcctg gaaacaactt    240
tttccggagc agggcaatcc taaggaatta aagactttg aaacaattaa aggagctaaa    300
tatactgcag tttcaacccc cggtgatatt cttctacaca tccgggcaaa acagatggga    360
ctctgctttg agtttgcctc cattatcgac gaaaagctga aggggttgt agattcaatc    420
gatgaaactc atggattcag gtatatggat ggaaaagcaa tcatcggttt tgtggacggt    480
accgaaaatc .cggcagtaga tgagaatccc tatcattttg cggtgatagg tgacgaggac    540
ccggacttta tcggtggcag ttacgtcttc gtacaaaaat acattcacga catgactgca    600
tggaattcac ttccggtcga agcccaggaa aaggtaatcg gccgtcataa atacaatgat    660
gtggaattgt cggacgagga aaagccgcaa aatgcacaca acgctgtcac taatattgga    720
gacgacttga aaatagtacg tgccaatatg ccgtttgcca atacttcgaa aggagaatac    780
ggaacatatt ttatcggcta tgcaagtacc ttcagtacca cccacaaaat gttggagaat    840
atgtttattg gtgatcctgt gggaaacacc gaccgtttac tggacttcag cactccgata    900
acaggaaccc tgttttttcgc accttcatac gatctgcttg ctaaactcgg agagtaa     957
```

<210> 3728
<211> 717
<212> DNA
<213> B.fragilis

<400> 3728
```
actgatatga aaataagaaa tctaatggtc gcagcaacct tattggttac tgccggagct     60
atggctcaaa atcaagattg tgccttcttt tttcccaacc aagaaggtga acaaatcacc    120
cgtaattgct acactgctga tggtaaactt actaatatcc tagtctacag agtagatcag    180
gcatatgaat atccgtcagg tatggaggta gtagcaaact atacatttac tgatgccaca    240
ggcaaaacac tcaattccgg acaaatggta gctcgttgta gcgatggaaa ttttttctatg    300
agtatgggag atgtggcaac attccccaca gcactcaaca tgatgaacgc tgatgtatat    360
atgatgggag atttaatgaa ttatccggat gccttttcta atccgatgaa tccgggagac    420
gatgacgaat ttgatgacgg aactctgcgt ctttaccaaa aaggaaataa aaacaaccgg    480
gctgaaatct ccgtattcga cagagaattt gttactacag aaactgtaaa tactcctgct    540
ggagcatttt attgtacgaa agtaaagtat gaaatgaata tctggacacc gaaagaaaca    600
attaagggtt acggatatga atggtatgca cccaatattg gtattgtccg ttccgaacaa    660
tataataata aaaaggagct acaatcgtac agtgtgttag aaagaattaa aaaatag      717
```

<210> 3729
<211> 1035
```

<212> DNA
<213> B.fragilis

<400> 3729

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agaatcatga agcaaaaaac cattcatata gagaatcttt cgataggcta cctgggtaag    60
accgatgtta aagttgtggc cgatcgtatc aatgccggca ttaactgtgg cgaacttact   120
tgcctgttgg gagctaatgg agtggggaag tccaccctgt tgcgtacact ttcggcattt   180
caacctaaat tggggggtaa gatagagatt gtgggcaagg agatcgatgc atataccgac   240
aaggaactgt caaccgtcat tagcgtagtg ctcactgaga aatgtgatat tcgcaatatg   300
acggtgcacg agcttgtagg cttgggacgc agtccgtata ccggtttttg gggaacactt   360
cgcggagaag ataaggaggt ggtcgaacgt tccattgctt tggtgaagat tcagaacctg   420
gcacaccgca tggtgcatac cctgagtgat ggtgaacgac agaaagtgat gattgccaaa   480
gcgctggcac aagagactcc ggtgatcttt ctggacgaac cgacggcatt tctcgatttc   540
cccagtaaag tggagatgat gcagttgctt caccggttga gccgccagac caataaaacg   600
attttccttt ccacacatga tctggagctg gctttacaga ttgccgataa aatctggttg   660
atggacaaga tgaacggggt gactatcggt actccggaag atctgtcact gagtggcaaa   720
ctgagtagtt tctttgcccg taaaggcatt gtgttcgatt tggagacggg cttgttccgg   780
gtagacaacg aatatacatc gcagatacgc ctggtggggc atggacagaa atatgccatg   840
gtgcgtaaag ccctgcaacg taatgggatt ttggctaatc gtactgtcga gtcggatacc   900
tacatcgaaa ccggtgatct gaaagacggt aacggattca tcctacatcc gcaggaaggg   960
gaagccgtaa cgctgaacag cattgaagaa ctgttggaga gattgcaggc cggaagtgcc  1020
gaaagagccg tttaa                                                    1035
```

<210> 3730
<211> 2178
<212> DNA
<213> B.fragilis

<400> 3730

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accctaatga aaaaattaat ggtaattctg ataaccggcc ttttatatat gtcgtgtacc    60
gacagtatgg aggtgtccgg agatgcagat agaaataata cagaggatgt atcggtaagg   120
ttagtgataa ccataccggc ctccactaca tatgcccgga cgcgaggaac atttgcgacg   180
accgatcatg agtctaaaat cagtgagatt caagtgttag tatttgaaga aggtaaatat   240
aagtaccgtg tacccggcat atccatcaac aacacttcat ccgctgcttc ttttaaagct   300
ttattaaaat caagcagttc gcctttaaaa ttactcatac tggccaatgc taccgatgcg   360
gtaatagcca atgagccttc ggtggatgat agcgaagatt tggtgaaaaa gaacatcaat   420
ctccggttca acaatatcac ttccgatttt ccaatgtatg gggagtatga attgcccgga   480
ggattagaag caacggttat aaataatatt accggaataa agatgttacg ttccattgcc   540
cgggtagacg tgaaagctac ggaagtggca aactttaagc tgtcaggggt gaaagcatat   600
cgtgccaatg accacttaca gataataccc gatgaaaccg gagtcgtcag ggttacgctt   660
ccgagcgtac ctgccggaag ttccggaaat gtaaacagta tcctgtatcc tgtacctgct   720
gagaacctga tgaattttc agcccaactt tacttgcctg aagccgattc accaactccg   780
gacaaccggg taagtcaggc aacctgtatt gttgtagagg ttattatga agggagtgat   840
caaccgggtt actaccgtat ggattttgat cccgataatg ttgaaaatgc tttcgggcaa   900
gtacttcgta atcataagta tattttcaat ataaagaagg tctcaggtcc ggggtggggt   960
agcccggacg aagcggcgaa taatcgttcc gcccatatcg tagccgaagt acaggcttgg  1020
gatgattaca ccattgatat gaattttgat ggagaacatc attttggagt gtcgacccgg  1080
gaaattgttc tcaagaacaa agcaggttcc gcaggcatta tcaacgtaag taccgatctt  1140
ccggactata ccttacaatg ggccgatgcg gcaggaactc ccacaggaac cggaagtcag  1200
tcattggcaa atgaatactt tactgtaaca aaagctcaaa atggaagtca gttagtgatt  1260
acggctctgc agagtaattc gacgaatgat actagccgaa ttcaaaattt tgtcatcaca  1320
gcccaccgtt ggcgtattct ggtgaatatt cagcaaaaat atgatgtggc cgcttatcag  1380
acaattcatc ttctaacgtt caatgccggg ttgggatatc tgggaacgaa cattattggt  1440
tccggcagtg ccgaagcgcg tgcaaccggt cttcgaggta tattgaataa tcaaaataat  1500
ttcggtccga ccggaactgt tgaatgtgga ggttataatc tgataggtgt aaatgccaac  1560
tataataact taaccgatgc tcttttttgcc tcttttgatg ttgtctatgt ccattatatg  1620
ggcaatctgt tgttcggtac ctcggatgca caaaaagctc ataactgggt gaaatcgaaa  1680
aagaatcgtg tattgattgt ttcttatgat gctctggatg tcagccagaa tttattaaaa  1740
gagatattgg gcgggaataa cggcatttct tttttaacga gtaataccgg tccctatcct  1800
```

```
ttggcaactc cagagaatgg taacagctac tttagcacta ccggtccttt taccagtgcc    1860
ccatatactc ctatcaatac cgacttctct ttacgcaatt atgatgctta tcatggcgaa    1920
atacagctca acacggaagc atccaaaggc attactccta tattgatggg acctgcggga    1980
ggtattgttt taggcattga ttattcaagg agaatcgttt attggggtga tacggatata    2040
ggtagttcgg cgtccagttc gacgtcaact accgataacc gtataaacaa taattccggg    2100
accattaata ataatgcgtc caaactcata gctaatgttt ttgcctggat agcagaaact    2160
gtactatatg gagagtaa                                                  2178
```

<210> 3731
<211> 1287
<212> DNA
<213> B.fragilis

<400> 3731

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caaataatga aaagagacga tttaattttc gatattatcg aaaaagaaca tcaacgtcag      60
ttgaaaggca ttgagctgat cgcatcagaa aatttcgtaa gtgatcaggt gatggaggca     120
atgggatctt gtcttaccaa taaatatgcg gaaggatatc cgggtaaacg ctactatggt     180
ggctgtgaag tggtagacca aagcgaacaa attgccattg accgcctgaa agagattttt     240
ggtgcagaat gggccaatgt gcaacccccac tcaggagcac aggctaatgc agccgtattt    300
ctggctgtac tgaatccggg agataaattc atggggctga atctggcaca tggaggacac     360
ctttcacatg gttcattagt aaacacttcg ggaatcattt atactccctg cgaatataat     420
ctgaaacagg aaactgggcg cgtagattac gatcaaatgg aggaagtagc attgcgtgaa     480
aagcccaaaa tgatcattgg aggcggttcg gcctactctc gtgaatggga ttataaacgt     540
atgcgcgaaa ttgccgacaa ggtaggagca attcttatga tcgacatggc acatcctgct     600
gggttaattg cagccggtct attggataat cctgtgaaat atgcacatat tgtgacttca     660
accactcata agaccctccg aggacctcgt ggtggcgtaa tcatgatggg aaaagacttt     720
cctaatcctt ggggaaagaa aactccgaaa ggagaaatta agatgatgtc tcaactactt     780
gactcagctg tattcccagg aatacaagga gggccgttgg aacatgtgat tgcagccaaa     840
gctgtagctt tcggtgaatg tttgcaaccc gaatataaag aatatcaaaa acaggtacaa     900
aagaatgccg ctgtattagc acaagccttg attgaccgtg gtttcactat tgtttcaggt     960
ggcactgata atcattccat gctggttgac ttgcgtagta aataccctac tctaacaggt    1020
aaggttgcag aaaaagcact cgtatctgct gatataacag ttaataaaaa tatggttccg    1080
tttgatagtc gttccgcatt ccagacttca ggtatccgtt tgggtactcc tgccatcaca    1140
acacgtggtg caaaagaaga tctgatgttg gaaatcgcgg aaatgatcga aaccgtatta    1200
tctaacgtag aaaatgaaga agtgatagca caagtacgtg cacgtgtcaa caagacaatg    1260
gaaaaatatc cgatcttcgc atattaa                                        1287
```

<210> 3732
<211> 1404
<212> DNA
<213> B.fragilis

<400> 3732

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tatatccacc taaataaaaa gataatgaaa acaagtaaaa tctttatgac tacactggtt      60
gcattgacta tggctgcatg cagcaatgac aatgattggg ttgaccagtc cagcaatccg     120
gacgtaattg ccccggatgc atatgcctct ttttccatca acattcccca cgcatcgaag     180
acacgtgcag tatctacaga tccgggaatt gcagcggaaa acactgtgaa atccttacat     240
gtgtttattt atgacgcaga atctcccaat acacctactg tagctgaatt tacggtcgca     300
ggaggtacac tcacacagaa accagccggg agttctacct ggatgaccag ccaaccgatc     360
agcactaaaa agacggataa atatattttt gcgggagtaa accttaatac agaaatagtg     420
aactatatta cttctaacgg attgggtgca ttcagctata aagatttcac acaagaaata     480
acaaaattgg cggatcaaac aaatggattt gtcatgttca atagtgctta tccgaccctt     540
acgcccgctg ctgatttata tgagaagaaa agtgaagccg aaaacaatca cataaccatt     600
tctgtgaatc gcatcactgc aaaagcggcg gtgttccaat cacagagctt tgtggtgaac     660
ggaggcggaa cgatgacaga tctgaagttc ggctggagaa acctgaataa aaaattctac     720
tttattcagg ataacagaga cactctcatc aaagactata attgggctaa ttataccgca     780
gaagatttta cgaggggaac agatgccatc aacgtttatg cttcggctga tgtgcccacc     840
tctttttctt atgctacgga aaatgcattc cagtatattt cgggtacatc caatgtggat     900
gcagcaactt ttatcagtgt cagcgggggta tttacaccca ctaacatcat atctgccaaa     960
```

```
aaaaatcccc ctacagttgc ggctgatttt gaaatcatcg tcaatccgaa accggcggat    1020
aaaacattct ttgtcgtgcg gactgccgat ggtgttgcca attactttat agatggaccc    1080
acggcagaaa agtttgcgga gctatgtgcc gcgaatactc cgcaaatgcc atctatcaat    1140
gggatctacc tattatcgga gaatacgtat agcaacggat tgtgttacta tcatattttt    1200
gttaacggtg acgcagtcac accgcaggct ccttataata tctacagaaa ccaatatttc    1260
aagatcaaca tcaattctat acaagcaccg ggaaatcctt cggacaattt tgacagagga    1320
gaaccaatca agcctaattc atggattggg gtcgacatcc agattatccc ttgggaggtg    1380
attgaagaag atcacgattt ataa                                           1404
```

<210> 3733
<211> 1407
<212> DNA
<213> B.fragilis

<400> 3733

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caagaaattg attcatacgg tggtaggttc gggatatatc atgtatgctt aactttaaca    60
agccaggcta tgaaaatagg acgtaaaatc gcactctttt atacgttggt aacggtactg    120
accaccatgg cggttatcgg agtgttctac ctgttcagtt caaggtatat cgatgggttg    180
tacaggtcat accttcggga aaaagctttt ctgaccgctc agaaacactg ggagcgagat    240
gaagtggatg agcaaagcta tcagaccatt caacggaagt atgatgagct gctgccggag    300
gccaaagaga ttttgttgga tatggatagt gatgccgtgg tgcgtgatac gctgaataaa    360
tatctttccg ccagccagca gaagcagctt ctcgagtcaa aagagatgtc atcggtctct    420
ttcgtatatc aggatatgct gggagccgca ctatactatc ccgataatga aggcaatttt    480
atcgtaatta tcatgtcgca taacagttat ggggtcaaga tacaagaaca cttgctgctc    540
ttatccgcct ttctggtatt atgcagctcg gtattgatct ttttcatcgg acaactctat    600
tctacgagaa tattgattcc cttgcagcac gtcctgttac agttgaaaca gatccgcggc    660
aacagtctga accgcagatt gaagaccacc ggcaataaag atgaactgga ccatctgata    720
gaaaccttaa acagtatgct cgaccgtatc gatacggcat ttagagcaga aaaatcattt    780
gtcagccatg cttctcacga actgaataat cctattaccg ccattcaggg tgaatgtgaa    840
ataagtctcc tgaaagaacg gagtaccgat gagtacatcg aagcactccg gcggatagcc    900
ggggaaagta aacgcctgtc caatctgatc aggcatctgc tgtttctgtc gagacaggaa    960
gaggacatcc ggaagaataa cgtagaagag attcgtctgg cagacctgtt ggaagaggct    1020
ggagctgcta acccgcgcat ccggctgcaa tatccggaag atgccgcaag gtacgctgtg    1080
gtcagtgcca gcccttactt gtttaaaata gccttgcaaa acgtgataga caatgcctgc    1140
aagtattcgc aaggcgaggt gcttatccgg ctttacaagg aagatgagcg atgggggata    1200
gctgtcaaag attccggaat cggcatcccg gcggatgaaa tggaacttat cttccagtca    1260
ttctaccggg gaagtaatac gagagaatac gccggtcaag ggatcgggtt aagtctttcc    1320
atgaaaatct tttctgtcta caggggaag gtcagcattc gttccgaaga agggaagggg    1380
acggaagtga gagttgtctt cgcataa                                        1407
```

<210> 3734
<211> 939
<212> DNA
<213> B.fragilis

<400> 3734

```
acatataacg atatggaaaa cagaagttta gtaaccatag cggagcattc gagggagaaa    60
attctctata tgctcgaaat ggcgaaacaa tttgaaaaga atcccaaccg ccggttattg    120
gaaggcaaag tagtcgctac cctgttcttt gaaccttcta cgcgtacccg actaagtttc    180
gaaactgctg ccaatcgact aggcgcacgg gtaatcggat tttcggatcc caaagccacc    240
agttcatcca aggggggagac tctgaaagat accattatga tggtgagtaa ttacgctgat    300
gtgattgtta tgagacatta tctggaagga gcagcacgct atgcaagtga agtggctccg    360
gtacctatcg taaatgccgg agacggagcc aaccagcatc cttcgcaaac gatgctcgat    420
ctctattcta tatataaaac acaaggtaca ctggagaatc tgaatatcta tttggtaggt    480
gatttgaaat acggacgtac cgtacactct ttactgatgg ctatgcgcca cttttaaccc g    540
actttccact ttatcgcccc cgaggaactg aaaatgccgg aagaatataa aatatattgc    600
aaagagcaca atataaaata tgtagagcat acggacttta acgaagaggt aattaaggat    660
gctgatatcc tttacatgac ccgcgtacaa cgtgaacgtt tcactgatct aatggaatat    720
gaacgggtaa aaaacgtata tatccttaaa gcgaaaatgc ttgaaaatac tcgttctaac    780
```

```
cttcgtattc ttcatccgtt accacgtgtc aatgaaatag cttatgatgt ggatgacagt    840
ccgaaagctt attattttca acaagcacaa aatggactct atgcccgtca agctatactt    900
tgcgatgtat taggaatcac tttacaagat attttataa                           939
```

<210> 3735
<211> 903
<212> DNA
<213> B.fragilis

<400> 3735
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aaaaagaaag aaatgaaaaa catattgatt atcggtgcca atggatttac ggggcgccgg     60
atactgaatg acttatcggt taaccctata taccacgtca caggatgctc gctgagagat    120
gacatttgcc ccggcaaaga ttatcgcttc gtacgtaccg atatccggga cgaaaatgaa    180
gtacggaaat tatttaaaga atgccggccg gacatcgtaa tcaacacctc tgccctttcg    240
gtaccggact attgcgaaac ccatcatgca gaagctgaag ctacaaatgt tacagcagtc    300
gaaacgatag cacatgtttg cgaacagtat ggcagtcgtt tcatccatct ttccacggac    360
tttgtatttg acggtaaaag catccggctc tacaaggaag aagatgaagc gattccggtg    420
aattattacg gtgttacgaa actgaaagcc gaaaagatta tagccagcat ttgtagtaat    480
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catacagcca acggcatcta tcatatttgc ggcagcgaat gcctcacaat tgccgaaatc    720
gcctaccggg tggctgattt tctgaaactg gatcgttcat tgatcgaacc cgtcactacc    780
gaggaaatga aagaggctac tccccgcccg cgtttcagcg gattaagtat cgaaaaggct    840
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taa                                                                   903
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<210> 3736
<211> 735
<212> DNA
<213> B.fragilis

<400> 3736
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cgttatccgg gagtgagagt cttgatattc accggagaaa ttttaaatga gaagctatgg    300
gtagatgtgc tgaacgccgg agcagacgga attatcttga aaacaggtga attacttacc    360
aagacggatg tacaggccgt aatggatggg aagaagttgg tattcaatta tccgattctg    420
gagaaaatag tggagcggtt taaaaaatcg gtggctaacg acgctaagcg tcaagaggct    480
gtcatcagtt atgatattga tgaatatgat gaacgtttcc tccgccatct ggcgttgggg    540
tataccaaag aaatgatagc taacctaaag ggtatgcctt tcggagtgaa atcgttagag    600
aagcggcaga atgatctgat cggaaggttg tttccacagg gtgaacgggt aggagtaaat    660
gcaaccagac tggtggtccg tgcattagaa cttcgtataa ttgatttgga caatctggaa    720
gcagatgaag agtaa                                                      735
```

<210> 3737
<211> 546
<212> DNA
<213> B.fragilis

<400> 3737
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caatacggag atttcctgat cgatatggga ttgtttatag cagctcctcc caaactgccg    180
aaatataaat tcgaattacc cgatgcaagc aaagactata accggatctt cagtttgaat    240
ccggacgtca taatgacaca aggactatcc aatgtgttca ctccctccct ttcatacgga    300
ttcggttggg gcggacacga tttcttctcg tctccacaac agctccagat gggatcgttt    360
```

```
aaactgaaaa acggcatgcg tctgaacacg tatggggaat ataatgccga tggcaaaaaa    420
gtccctaacc ctgccgccat gccatgggaa aagaacaact tcaaaggggc tttcgaaatg    480
aaatcttccg atgggaattt cggtatccgc attgaagtcc agcaggggcg caactatcca    540
tattaa                                                                546
```

<210> 3738
<211> 210
<212> DNA
<213> B.fragilis

<400> 3738
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ttaaggcttt tcatccggac ttgttgcccg attatacgcc tgtctattac gaacgactca     60
attaatctgt ccgatgaaac gaccgacaat acctcttatg ctgcttatag ccgcatctat    120
ttttgtcttt tttctgctga atctgttgtt gggctcggtt tccattccca tcggttcggt    180
atggaacata ctttggggcg gaacggatga                                     210
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<210> 3739
<211> 228
<212> DNA
<213> B.fragilis

<400> 3739
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ggtttaggtt tattttctca gatacaaaga tggacttttt caagaaagaa tccgtggcgt     60
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aattatgcaa caatcggaaa tgtgtgtaaa gacgtgtatc tattttcgaa acttcgtcat    180
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```

<210> 3740
<211> 219
<212> DNA
<213> B.fragilis

<400> 3740
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caggaaccct gtttttcgca ccttcatacg atctgcttgc taaactcgga gagtaatagt     60
tactctccat atagtacagt ttctgctatc caggcaaaaa cattagctat gagtttggac    120
gcattattat taatggtccc ggaattattg tttatacggt tatcggtagt tgacgtcgaa    180
ctggacgccg aactacctat atccgtatca ccccaataa                           219
```

<210> 3741
<211> 957
<212> DNA
<213> B.fragilis

<400> 3741
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gggagaagac tgaacatctt ctctttgaag aagcccgtta aattcaacaa acagtttgta     60
acggatgccg atgcctggtg gaaagctgat aatgggaatt tcggtatcat cctccctccg    120
accggttctc tcccggctgt gggctccccc atgtctcctt ggtcatggga ttttcccggc    180
ggtagcggca gtccgttgag aatttcagat tatgcaggct ataatcctaa agccccacat    240
ctgttttcga tgcatccgga ccccggcctg tatcccaatt cgcaattcag atgctccatc    300
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tccgttatgg agatgcagca acaagaatat gcagtggtgt ggatgttcc gaattggccg     480
gacggtaaag tggatgttta tatggttgct tcctatgctg aagcttcaga gcagtcttac    540
agtagtataa atgtgactct gttttcaatg aatcagggtc ctctagagac agcttacatg    600
gtcaagaccc ttgccaagcc tgtaccgaac agctttaaat ttgattataa ggtcgttaat    660
gactttgcga atgaatatca tttggaatgt acatttacgt ctattaaagg agcatgggag    720
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ttcaactctc aatcatttac tcgtgtacag acttctcaaa ataactatgt aaactataca    900
```

gcgagatact taggagacaa ttatcaatcc ggttctatct tctttagagc caaataa   957

<210> 3742
<211> 1344
<212> DNA
<213> B.fragilis

<400> 3742
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gataaggagg aaattgctgc cgtgtacgag gaaatcattg atgaatattt gcaaaaagga   180
attccccggg aaataccggc tttaataaat gtcagtggaa ttccgggggc aggcaaatcg   240
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gatgcaatca tggaaaacga gcgtttaccc tatattagag aagaggtcaa ccatgcggaa   360
gaagcattca aaagatggga gctttctgca aggatcgccg gttatgaatt acttaagaga   420
gctatagaaa ataagtattt gattatattc gatcattcgt ctgcgctccc ccaacacatt   480
gatttattta atctgttatt gtctgaggga tacgaagttc acttaatttt tattttttatc   540
ccggaagaag aagccaggag gcgagcgaaa aacaggaaac gttatatacc tccatattat   600
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gaatttaagg gaagaagtat cggaagatat ttaaaagaac atgatatgat ccctgacgta   840
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ggtctggatt cagatatttc tccattaaac gcttttgtcg agatcgacta tggtgttgac   960
gaaaataaaa cggaagaaga agtgaggtta cgtttaggaa atggaaatat cgaaaaaggg   1020
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ccggaccaaa tcattcatac ttggctggat ttcgcagaga agactgtgat acctcatcag   1140
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tttgagaagt tcgcccaaga gcataaaata aaagtggctc cgggaggact ttgtattttt   1260
gataaaaacg atggtgattc attctggact tgctctgcct ggaatgtcaa gccttatgaa   1320
ctatatgcag atagccacta ctga   1344

<210> 3743
<211> 1356
<212> DNA
<213> B.fragilis

<400> 3743
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atttacacct ctcctgacgc atcaaagatt ttttgttata cgccttccat tattgtcaca   180
ccaacgggac gtttaatagt ttctttcgat ttaggaggag aaggtgtaaa aagtatagag   240
ggccataagt catccagagc tggtggaagc agatttggac aagggaaaat attcatttct   300
gatgataatg gacagaaatg gactttcgtt caaaatttcc cgttttggca tgcacgtctg   360
ttcacaatag gtaacagcat ctacctgatc gggcatgccg gggatatttg tatcatgaaa   420
tcggaagata atggtgaaag ctggtctgac acctatttcc tcacccacgg agaaaagtgg   480
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tgtgaaacca ataagcccaa ggaaatagcg acaggtatca acaatgctcc cctaggctgg   780
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caaaagattt catatatccc atttcccggc ggacatctga aattctttat catatatgat   1020
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cttcatttttt caaggaattg cgtagactgg tgttttgtcg gaatggtggc ttgctctaca   1200
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<210> 3744
<211> 2121
<212> DNA
<213> B.fragilis

<400> 3744

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cgtttagaca gtttgtacag atccttgccc gaagtgatgg tggtaggtga acgtccggtg   180
gtgaaagcaa tgcagggaaa acttgtatat gatttgcctc gacttattca gaattttgcg   240
gtagacaatg catatgacgc gataaaggaa ctccccggag tgagcgaaat gaatgataat   300
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caggaacaac tgaacactct tttaaaaagc attcctgccg ggcgtattga aaaggccgaa   420
gtgatgtatt cggctcctgc acgttatcag gtgcgggggg ctatgataaa tatctgcctg   480
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cagcgtatca atcgttggaa actttttcctc tccggagaac atgatctggg caatgggtgg   1080
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gcctcattgg ctgccgaaca attccacacg actgtatgga atgaatggag cctgtatccg   1320
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tcaccgcgaa tttgttatgt tatgcagaac gtgaccaacc attactctgc tttccgtgaa   2040
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<210> 3745
<211> 483
<212> DNA
<213> B.fragilis

<400> 3745

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ttaaagttta ttgcacaaaa gattcaggac cgttcgtcac tttcggtagg tgatattaag   180
agtacgattc agaattttgt agagaaactg aaagagcagt gctggaagg caaagcggta   240
aatatcgagg gattgggtgt atttatgttg gctgccaaat cgaaaggctc cgaaaaacaa   300
gaggacatca ctgctaaaag cgtggatagt gtgcgtatct attttcaggc taataaagaa   360
ctgaaaatta ctaaaacagc tacccgtgca ggtgagaagc tggacctgat cagtctggat   420
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taa                                                                 483
```

<210> 3746
<211> 702
<212> DNA
<213> B.fragilis

<400> 3746
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aatcagatca ttaacaagct cgttgccttt tttacattct gcatcggcat acagatttcc   660
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<210> 3747
<211> 1611
<212> DNA
<213> B.fragilis

<400> 3747
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atgtaccata ccatgaaaag tgatatggaa cattcgatta tcgaggctat gcgcacaagt   180
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gaaatctctg tttccgccgg atacaatgat gaaggtggaa cactggttcg cagcagcact   300
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aaccttacag tatttgccga ccggacccac ttcagcaata tattgagcaa cctgatagac   1320
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ggatacggac tgggactcta ttatgtaaaa acaatgatcg aaaaacatgg cggaacagtt   1560
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<210> 3748
<211> 408
<212> DNA

<213> B.fragilis

<400> 3748
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gaagtctaca aagagattga taagttgcag aatgacaaag taactccgga agaactggcc   180
atggtgcgca actatatgct tggagaaatg tgccgtaatt atgagtcgcc tttctcactg   240
gcagatgcct ggatgtttat tctgacatca ggtctggacg atgattattt tgcccgttcg   300
ctacaagctg tgaaagaggt taccccggaa gaaatacggg agttggcagg ccgctatttg   360
tgtaaagaga gtttaaaaga ggtcattgca ggtaaaaagt taacataa                408
```

<210> 3749
<211> 324
<212> DNA
<213> B.fragilis

<400> 3749
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aagttgccag ggagtgcatt gtgtaacttt ttaaaatata cgagtatgtt ttccattata    60
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ttggctactt caagtatctt gggcagcatg ttggcttctt ttctcgtatt acgcctgttt   300
ttcaagaaag gaggaaagtc atga                                          324
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<210> 3750
<211> 1713
<212> DNA
<213> B.fragilis

<400> 3750
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<210> 3751
<211> 3288
<212> DNA
<213> B.fragilis

<400> 3751
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gtacaagcaa aagccgatac ttacaaaaca caagagactg caagtataca acagcaaaca   180
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<210> 3752
<211> 225
<212> DNA
<213> B.fragilis

<400> 3752

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ttactcacca tcataatggt atctttcaga gtctccccct tggatgaact ggtggctttg     60
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cgggtacgcg tagaaggttc aaagaacagg gtagcgacta ctttgccttc caataaccgg    180
cggttgggat tcttttcaaa ttgtttcgcc atttcgagca tatag                    225
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<210> 3753
<211> 1224
<212> DNA
<213> B.fragilis

<400> 3753

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aaagttaaca taaaaatctg tcaaaagaaa gtagctttag tgtataaatt gtatatttgc     60
caaatgaaaa caacaagata catctataca gcactcattt tagcggctct ttcgcaaggg    120
aatgctgtcg cacaaaataa aggtggattc ttcagcaaag tgcgggacac cttctcaaca    180
gaaatcaaga taggaaatta cacgtttaaa gatggttccg tatataccgg agaaatgaaa    240
gggcgtaagc caaatggtaa aggaaaaacc attttttaaga atggcgacgt ttacgaaggg    300
gaatacgtga aaggtaaaag agaaggattc ggagtttaca cctttccgga tggcgaacga    360
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ggtaatggtg tggaggaaga taaaaacggg aatcgctatg agggcttttt caaacaaggt   1140
aaaaagaatg gcccgtttgt agaaacagat aaaaacggaa aagtgattcg taaaggcacc   1200
tataaatttg gacgactgga ataa                                          1224
```

<210> 3754
<211> 339
<212> DNA
<213> B.fragilis

<400> 3754

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gagaaagaga tcaacggatt taaagtatcc ggaacggtcg aagtctataa cgacagtaaa    120
cggatcaagc gcattgacgc ttccgtacaa aaaacagatt cgaaggccat ggcacctttc    180
aagtattcct ttacggttac ccgtggactg aacgatatgg tcaatccatc tgaggaaaat    240
gaaccggaac gggaccaggc tctgacagcc ggcatcgaat ttgagaaagc tgttgaacag    300
gccgtatccg gtatgatatt taacactatc gtagaataa                          339
```

<210> 3755
<211> 465
<212> DNA
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<213> B.fragilis

<400> 3755

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tgtaaaaaag gcaacgagct tgttaatgat ctgattccct accggcccga gtttctgaat     120
aattctttgc ccttgggaaa gaaagatata aagtatggct gccatacaaa ctataacaag     180
tgcgatcaca aaataattga ttccggtttg caacaattta cctttgacgc tggcagaagc     240
catcagagta aatataacgg atatactgcc cggaccgatg ctgatgggaa acgtgatggg     300
ataaaatatc ttctgttcta tattcttcca tttgaggcta tccatgttcc ggttcgattc     360
ttcctgatcc ggagagttag aatcgccgag caactccatg gccgtttta c agataagtat     420
cccaccgccc aactgaatga cagggatggc cagaccgaac attaa              465
```

<210> 3756
<211> 1173
<212> DNA
<213> B.fragilis

<400> 3756

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tctgtgccta caactaaatt tgattctaaa acaggaatgc tcagaggtac taataaggaa     180
gcaaagata ttaatctcat catagaacgg ttgaaagcaa aagttaatga tattctcgtt     240
aagtataggc tcaaaaatct cacactgaat aaagaagctt ttatgaggga atataacaac     300
ccttcagatt ttaaatcctt tcatgacttt gtagcatctt atatgaagac ttacagtagg     360
agattagaaa taggaacatt tcgacatcac aaaagttgta tgagaaagtt taaagagtat     420
tgtgaaggct tacagtttca tgaactaaca gaagatttcc tcagagacta tctaatttat     480
atgaaaaaaa ctctatgcaa cgcagattca acggctcaac gtaatttatc aaccataaaa     540
atatatgtat ctgcggctat aaaaaagggg tatatggaaa atgatccttt taaggatttt     600
ggtgtaaaga gaataaaaag taatattgac tatctcaccg aagaggaatt gataaagttc     660
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gagatcgcat ccatattaga gataaagaaa aaagtgtcag ccaaaacagg taggcatact    1020
ttcgctacca tatttctaaa aaaaacaaag gatgtagcga cattgcaaaa gttattagga    1080
catagtaatt tgaaagaaac aatgatctat gcgcatgtac ttgatgaaag caaacaggaa    1140
ggaatgcaat gcttcaactg cttcgctatt taa                                 1173
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<210> 3757
<211> 801
<212> DNA
<213> B.fragilis

<400> 3757

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cctgaaattc gtcaggaact gcatatcaac gatagaaaca tacaaacaga cggtactctt     180
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gaaagtattc cgtccggttg gatcgtccct caattgggga cctattccac cccttcatt     300
tgggattacg accgttatta caatttcaac ctttctccca acagtaatct cagtactttc     360
agcaattata cacttatct cagcataggc accatcgtaa aggcgggtgc tgcctactcg     420
ttctctccca atgatcgctg gatcttttcg ggaggagtgt ttgttgctaa atatacattg     480
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ggaaaaatta cctacaggct tacagaccat ttatacctga acgtgttcgg ccaatattcg     600
ctcaacgggc aacgaaactc taagaagggc tatatggtcc ccgacttata tatgcagaat     660
catttcggag gaacagtcga ctacatgttc aatggtaaat tcggcattac cggaggagcc     720
atccacgaat tcaatcccgt aaaaggacgt tgggaaacga accctgtttt cggtcctgta     780
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<210> 3758
<211> 1758
<212> DNA
<213> B.fragilis

<400> 3758
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gtacgcggac aagcatggca ggacgaactg aaagattctt atgcccgcct cccgcaaagg    180
gcagaagata aagtacgcaa acctttatgg gatttgtcgc ggcaaagcgc agggctgtct    240
gtcgccttcc gttccaacgc atccgaaata aaggttcgct acgtagtaaa aggcggactc    300
tctatgcccc atatgccggc cacgggagtt tcgggcatcg atctgtatgc tacagacaat    360
aacgggcaag aacgctggtg tgccggaaat tattccatgg gagacaccat tgtctacaat    420
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ctgtcagaga tcgatgcacg gctatatatc attgactgca tgcccaatct ggcaggaaaa    780
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gattgtactt tcattaatct tgctccgcaa ctgacgcata aagacggaac aatagaccat   1680
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<210> 3759
<211> 240
<212> DNA
<213> B.fragilis

<400> 3759
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aagtgtctat tgaagcaatc cctgaaaaag aaagctctga taatgcaacg caccgtcatc    180
aaagggattg ttcgtttcga taggcgcaac aaaagttaca gattacttgt ttacagataa    240

<210> 3760
<211> 321
<212> DNA
<213> B.fragilis

<400> 3760
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atctttcata cctcggatca ccgcatcctg atgccggcca ctttgctggc aggtgcttcg    180
ttggctttgg tatgcaatct ggttgcccgc atgccgggct ttgagggagc tcttccggtc    240
```

```
aactccgtga ctgcgctggt aggcgcgccg gtcgtggcat cagtgttgtt ccgtaagcgt    300
aaaagtgaat taagtgaata a                                               321
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<210> 3761
<211> 867
<212> DNA
<213> B.fragilis

<400> 3761
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ggaaaagaaa tggttttgcg cgttgcagag attgccaact atgtttgtaa taaggtagaa    180
ggatgtaatt acatcgtcgc aacagaccac gaaaaaatcg ttaatttctg caaggagaat    240
aatatagctg taatgatgac ttccgagaac tgcaaaagtg gaacagaaag atgctgggat    300
gtcacaacca aaattgctga gaaaccggat tttatagtca atctgcaagg agacaatccg    360
ttatgcccac cctggtttat agaacagttg attgaagctt ggaaaaatga taaggaagga    420
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aagaaaatca caccatatag cgggacaacg gttgaagtcg ataaatttgg atacgcgctt    540
gcattcagta aagctatgat tcccgtgata agaaatgaag aaaaggtcag aaaaattctt    600
gataaatctc ctgtcagacg tcatatcgga ctttattcgt atacttacga cgcgctcaaa    660
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```

<210> 3762
<211> 2115
<212> DNA
<213> B.fragilis

<400> 3762
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caggaacctc tgaatcgtat tcgggtatgg aattatcttt ttgagaaagt attacctaaa    420
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cgcaatgaag tggcacgttt catcctaaaa gatcttgacg aagctgtcag tcgactgaag    660
gaacgtggtt ttcagaataa ccaacgcatc aacaaacagg ctgcattagt gctgaaatca    720
agagttgcac tgtttgaagc aactttttgaa aaatatcatc agggaacggg acgcgtaccc    780
ggcgatccca catggcccgg agccgccatg agttataaca gtggaaaaac attcgatatt    840
gctggcgaaa taaacttctt cctgaccgag gcaatgcagg cagcggtagc tgttgcagac    900
catgttcaat tggcagagaa ctcgcatgta atgaatcctc catacaatac actttatgga    960
tggaatcctt attttgaaat gttcagtcaa ccggatcttt cgaacgtgga agaagtactg   1020
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aacggagacc gtaccggact gacacgttcg ttgatcaaaa cattcctgat gaaagacggt   1140
ctgcctattt atgcaagtaa tagtactatt gatgacagaa cggtgtctga cgaaaagaaa   1200
gaccgcgacg agcgcttgca attgtttgta tggggagaaa aagatgcctg gatgacagat   1260
gaaagagcgg atacagtgaa gaattacaat aaggatcagg cgggaaactc agtgacaaat   1320
ccggtaccgg taccttgggt aaaatctact gtaatcagtg atcaggaaca gacacgtgat   1380
atcaccggtt atcgttcccg taagttctat ccgtatgatg atgaacaaag taagtcggac   1440
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atagaggctt gttatgagaa gaatggtacg ctggacagca aggcacagga atattggaaa   1560
gccatacgca gacgtgccgg tgtcgatgaa gactatcaga agacaatcgc ccgcacggat   1620
ctggggcgcg aagacgatct gggagtttac tcaggagacc ggatggtgga cgctacactt   1680
```

```
tacaacatac gtcgcgaacg tcgctgcgaa tttattgccg aaggcatgcg ctgggatgac    1740
ctgaaaagat ggcgctcttg ggaccggcta tttacggagc catatattgt ggagggcatt    1800
aacttctggg atgaagccta taaactttac acaaccgtag ataaagacgg caatgaaaaa    1860
tccgcggtgg tagctgatgg cagcacgtct gccaacatgt cgccaaaatc ggacgggaaa    1920
tacgtacggc cattgcgtag gacacaaacc aataatcagc tttatgacgg atatacctgg    1980
aaaaaagctt attatctgga accactcggc ttacaggact tgcaattgtc ggccaccaat    2040
ccggaggata tcaatacatc tatgatgtat caaaatccat attggcctgc cggcacaggc    2100
aaagcgcttg aatga                                                     2115
```

<210> 3763
<211> 477
<212> DNA
<213> B.fragilis

<400> 3763

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ataaccaatt ttctaaaaca acaacctatg actctaatca aatctatctc tggtatccgt     60
ggaaccattg gcggaggcgc aggcgaagga ctgaacccgc ttgacattgt aaaattcacg    120
tcggcttatg ccactttgat tcgcaaaaca tgcaaatcaa aaagtaacaa gatagtagtg    180
ggccgtgatg cccgcatttc cggtgagatg gtaaagaatg tcgtagtcgg taccttgatg    240
ggtatgggct gggacgtagt tgatatcgat cttgcttcta ctccgacaac cgaactggct    300
gttacaatgg aaagggcttg tggcggtatc attctgactg catcacataa ccccaaacaa    360
tggaatgcat tgaaaatggt tgatgagcat ggagaattcc tgaatgcagc cgaagggcaa    420
gaagtacttc gtattgctgc tgccgaggga gtcgattatg cggatgtcga tcatttg       477
```

<210> 3764
<211> 408
<212> DNA
<213> B.fragilis

<400> 3764

```
aaaattggtt atttagtagt tttagttcaa tgctttctga aatttacgaa tatcgtagaa     60
ataggggttt acatattggt ttgcactctg atgtcccatc ttcgaaggta caatattgta    120
gccgtacgct ttgtagagca cgacatcaag gcgaacgata ccacttgctt caatgtggtg    180
cttcccggtt tcgaaaatta tccgaattac tatacttatc cggacgtttt ccgttatgtg    240
gataacggta cttcagtagc cggtgtattt acagaggggt cgatgtatgc caaatatggt    300
acgacggatg ttcctcccgg atggctgctt gctttaaagt atgttaccaa ttatgcccat    360
gtgagaatga ttggtcttca ccacggggct ggaagaatcc gcgccaat                 408
```

<210> 3765
<211> 231
<212> DNA
<213> B.fragilis

<400> 3765

```
agtaccgtta tccacataac ggaaaacgtc cggataagta tagtaattcg gataattttc     60
gaaaccggga agcaccacat tgaagcaagt ggtatcgttc gccttgatgt cgtgctctac    120
aaagcgtacg gctacaatat tgtaccttcg aagatgggac atcagagtgc aaaccaatat    180
gtaaacccct atttctacga tattcgtaaa tttcagaaag cattgaacta a             231
```

<210> 3766
<211> 660
<212> DNA
<213> B.fragilis

<400> 3766

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aaaatgtact cgagtacaaa gacggtgtca gctttctcgg ttcttctacc ggatgggagg     60
acaaagtgga gatgggacac gggccgctct atgggtgtag agttcatggc acagaaaacc    120
ataggaaaga caacgggatg gctggcatat accctggcta agagtgaccg taagtttgcc    180
acaggaggaa taaacaacgg cgaacgcttt ccatataaat atgaccgccg acacaacatc    240
```

```
gacctgacac tcaatcatcg gttcaacgaa cggatcgatg taagtgcttc ctggatattt    300
accaccggag gtacgacaac gatccccacc gaactgacag gtattatccg tccgggcgac    360
aacgactcat cgatagaaga gggagactac gtcaagcatc gcaacaatta tcgcctcccc    420
gccacccacc ggttaaatgt aggggtcaac ttcagcaaga agactaaaca tggcatgcgc    480
atctggaatg tcagcatata taatgtatac aatgccatga accccactct gatatatcgc    540
acctacaaaa agactgaata tactcaaggc gaacaagcac aaggcaaccg cataccggtc    600
attcggaaat tcactctgtt gccttgcatt ccttcattca gttatacata taaattctaa    660
```

<210> 3767
<211> 1083
<212> DNA
<213> B.fragilis

<400> 3767

```
gtacaaagat ttatcgtatt tttgccaact caatatttat acaaacaagt tatgctgact     60
aaagtgattg ctcaggctca tattgatcat tttaccaaat ggtttgaacg ggccgacaaa    120
atagtaattg tatctcatgt gtcacctgat ggagatgcca ttggttcatc attgggattg    180
tatcattttt tggattctca agataaaatt gtcaatgtga ttgtccccaa tgctttttcc    240
gattttttga aatggatgcc gggtagtaag gatattttgc tgtatgaccg ttaccaggaa    300
tttgccgaca agctgattat ggaggcagat gtcatttgtt gtcttgactt taatgcgctg    360
aagcgtattg atgaaatgag tgatatagtg gccgcttcac cgggacgcaa aataatgata    420
gaccaccatc tttatcctga agattttgc agaatcacca tttcacatgc tgagatttcc    480
tctacttccg aactggtgtt tcgattgatt tgccggatgg gatattttag tgatatctcc    540
aaagaaggag ccgaatgtat ctatacgggc atgatgacag ataccggagg gttcacttat    600
aactctaata atcgtgaaat ctatttcatc atcagtgagt tactctcaaa aggaatcgat    660
aaagatgata tttaccggaa agtctacaat acttattccg aaagccgttt gcgtctgatg    720
ggatatgtgt tatcgaatat gaaggtgtat aaagattaca aatccgccct tatttcactg    780
acaaaggaag aacagggcaa atttgattat atcaaagggg atagcgaggg gtttgtcaac    840
atacctctgt ctatcaagaa tgtctgtttt tcttgttttc tacgtgagga cactgaaaag    900
aaaatgatta agatttctct ccgttcagta ggtaagtttc cttgtaatcg gttagctgcg    960
gaatttttca atggcggcgg gcatctcaat gcgtccggag gggaattta cggtactatg   1020
gaagaggctg taaaagtgtt tgaacaagca ttggagaaat ataaaccact tttgaaagaa   1080
taa                                                                 1083
```

<210> 3768
<211> 237
<212> DNA
<213> B.fragilis

<400> 3768

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agaacgttat ctgacccta tcaaagaaca tcccgaacta ttacaaatg tgccttaaa      60
gcatatagcc tcttatttgt ggattacacc acagtcgctg agcagaatcc ggagagaaat    120
gaaaatgtaa tttcggagct tgacacagcg acagagcggg tgaagacctc aacagaggct    180
ttgccatact cctctttcca tatttctctc gttataccaa tcattcgctc catttag       237
```

<210> 3769
<211> 465
<212> DNA
<213> B.fragilis

<400> 3769

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cgtcaatttc cgttcatttt attcttgtgt gcaaataaca aatcttttgc atttaaaaca      60
cttgttattt gcatccaaag aacaagcttt aacactgtgt taaaacaaag tctgttcctg    120
atcgggagtt tgattcttca aacgaaagat ttcagctggc ttgtgatgct tactgtatat    180
ggagtggata gtgtgttgac aatcatacac cggttgttgc tacatgaaaa tattggtttg    240
cctcaccgga aacatttgta tcagatcatg gttaatgaat tgagaatacc gcacgtggtg    300
gtatcgttgg tgtatatgat tgtgcaaatt gtgattatca tcgggtattt atattgccgg    360
ggttatggtg attggtattt attgggctgt atccttttgc tgagtggaat atatattgtt    420
cttatgcgca aatattttca cttgcatctt ttacctaaaa gataa                   465
```

<210> 3770
<211> 1125
<212> DNA
<213> B.fragilis

<400> 3770
atttattgt tatatttgca tatactaaat tttaaagcct tattcaatat gttcaattca   60
tttggcaata ttttcagact aaccagcttt ggcgaatccc atggtaaagg aatcggagga   120
gtgatcgatg gatttccagc aggtatcgtc atcgatgagg agtttgttca gcaagaacta   180
aaccgccgtc gtccgggaca atcggtaatt actacctccc gaaaagaagc tgataaagta   240
gaattccttt caggcatttt cgaaggaaag tctaccggat gccctatcgg gtttatcgta   300
tggaacgaaa accaacattc taatgactac aataacctgg agaaagtata ccgtccgtca   360
cacgccgact acacatacac cgtaaagtat ggaatccgcg atcaccgtgg cggtggtcgt   420
tcttcggcac gtgaaaccat ttcaagggta gtaggcggtg cattggccaa attagcatta   480
cgccaattgg gtattcacat cacggcatat acttcacagg taggtcctat aaaactggaa   540
ggcaattaca cggattacga tctggacttg atcgaaacca acccggtgcg ctgtcccgat   600
ccggagaaag caaagaaat gcaagacctg atttacaaaa tcaaaggaga aggagatacc   660
attggcggtg tactgacttg tgtcatcaaa ggttgtccta tcggacttgg gcaacccgta   720
tacggcaagc tccatgctgc attgggcaat gctatgctaa gcatcaatgc cgcaaaggct   780
tttgaatatg gagacggatt caaggggctc aaacaaaagg gatcggaaca aaatgacgta   840
ttctacaaca ataatggccg gattgaaaca cgtaccaacc actccggagg tatacaggga   900
ggcatcagca acggacagga catcttttc agggtagcgt ttaaaccggt ggctactgtt   960
ttgatggagc aggaaactgt aaacatagac ggtattgata caacactaaa ggcccgggga   1020
cgccatgacc cgtgtgtatt gccacgtgca gtgcctattg tggaagctat ggcagcaatg   1080
accatactcg actattattt attagataga atgacacaac tttaa   1125

<210> 3771
<211> 1113
<212> DNA
<213> B.fragilis

<400> 3771
aaccaagtgt ttttcactct tctctctttg ttttcagtaa tattcagtat ctttgtcaga   60
ccaactacac aaacatccgg aatgggagat gacaaaaaca aacgaataga ttttgtggac   120
ttaacgaaag gagtctgcat cattctggta gtaatggcac acataggtgg agccttcgaa   180
aaacttgatt atcactcgat gattgccagt tttcgcatgc ctctttattt cttcatctca   240
ggcattttct tcaaatccta tgaaggcctt ttcggcttct tcatccgaaa gataaacaag   300
ctgatcatcc ctttcctctt tttctatctc agcgcgttct ttctgaaata cattgtatgg   360
aaaatcgctc ccggagtctt ccagcttccg gtcagctgga cggaactctt agttgtgttt   420
catgaccatg cgctgatcaa gttcaaccct cccatctggt tcttgctggc actcttcaat   480
tgcaacatct tgttctatct ggttcacagt ttgcgcaacc ggcggttagg tctcatgttt   540
gccctcactt tgctgatcgg gacagccgga ttctatatgg gcaagcatca gatagaattg   600
ccctttata tggacgtagc catgagcgcc ctgcctttct acgtagccgg attctggatt   660
cgccgttaca acttcttcct ctttccccat cgtttcgaca agctgattcc gttatgcatc   720
ctggcagccc tggcagtgat gtacttcacc gccacattcg tgggcatgcg caccaacaat   780
tatgccggca acattttcca attttgggcc tcagcctttg ccggcatatt tatgatcatg   840
ctttctgca agaagttcaa aaagctgccc gtcatctcgt atatggggcg ttactcggtc   900
ataacactgg gcatacacgc accttactc cattttgaat atccggttgt cagccggttt   960
atccacaacg aatggggaca ggccattgcc ttactgctgc tgacgctgac cgtctgcatc   1020
attgcgaccc ccatattcct gaaactgatt ccgcaagcag tggcacaaaa agactttatt   1080
aaaaccaaac aatcgacaca acaaggatca taa   1113

<210> 3772
<211> 477
<212> DNA
<213> B.fragilis

<400> 3772

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aggacccgcc cgggagagaa gaattttat cggatcattg tggaacaacg gaaatactgg    60
aaatactatt gggaacaaaa tgaccagacc tgttggagtt cggcaatgca gaaaagcttt   120
aaactgcaaa caaacgaaga cgtggtgttg accgacggca aacccagtac ggaagaagat   180
gatgaaaacg gactgttcgg cactgtcaat aacaagtatg ccatatttga cgactcacgt   240
ttcaccgacg gaagttatac gatgaacgtc tataacgata tctacggatg gggattctgg   300
ggacaggagt atatctggat aaagacggat gtctccattc cgatactcag cattaccgaa   360
aaagaatatt attattttag aagcgtgaat ctggtcgaat ccgatgccta cgacaacaac   420
ctgagcgagc ctatcgtttt cccaaacaat tggaaacgga ggtaccggaa tgggtag      477
```

<210> 3773
<211> 2742
<212> DNA
<213> B.fragilis

<400> 3773
```
ttaatgacgc cattgaaagc aaatacgata atatcatcca tactactgtt gatcctcctg    60
atgcttccgt acgaagctat ggctcagcgt cgccgtgtca gggagttgaa agggccggtg   120
gtttattcac ccccaaagaa cgattcactg agagtcgaca cactgaaaaa cgatacattg   180
aaagccaatg tattgaaggc cgatacattg tcggcggaat cggtgaagaa aaagaaacaa   240
cccctggacg ctcccgttgt atattctgcc aatgactcta ttgtctttac acaaggagga   300
tttgcccatt tgtatggaga tggaaaggtg aactacgaga acatcgaact gggagccgaa   360
attatcacca tgaacatgga cagcagtacg gtctatgccc gtggagtgat cgactctgtg   420
ggagtggaga aggggaaacc ggtgtttaag gatggagaga ctccttatga aacgaaggct   480
atccggtata acttcaagag taaaaaagga tttatcaata cgtcgttac ccagcagggg   540
gaaggctacg tggtaggtaa caatgcgaag aaaggcgcaa acgatgaact gttcatggag   600
aatggacgat atacgacctg cgaccaccac gatcatccgc acttctatat gcagttgacc   660
aaagccaagg tccgtcctaa gaaaaatgtg gtaacggggc ctgcttatct ggtagtggaa   720
gatgtaccgt tgcctttggc cgtaccgttt ttcttctttc cgttttccag cagctattct   780
tcgggctttg tcatgccgag ttatatggat gactccagcc gtggtttcgg tttgaccggt   840
ggtggttact attttgctgt cagtgatctg atggacctca agctgactgc cgatattttt   900
accaaaggtt catgggccgc caatatggaa accaattata acaagcgtta taaatattcc   960
ggctcgttac aggccggcta tcaggtaacc aaacttgggg ataaaggtat gccggactat  1020
tcggttgcta agacttcaa gattgtgtgg aatcaccggc aagaccagaa ggcgagtccc  1080
aacagcactt tctcggcaag tgtaaacttc gctaccagta gttacgaacg taccaatatc  1140
aacaacctct ataattctca gttgatgacc cagaatacaa aaacttcgag tgtaagctac  1200
tctcgtagtt tcccggatca gaagctgaca ctcgcgggta cttcaacat agcgcaaacc  1260
atgcgtgact cttctattgc tgtcaccctg cctgacttga atattactct gagtactatt  1320
ttcctttta agcgtaaacg tgcggtaggt gaggagcgtt ggtacgaaaa gatctcattg  1380
cgttattcgg gacgtttgac caacagcctg aagacaaaag acgaccgttt gtttaaagcc  1440
ggtttcaggg aatgggagaa tgcaatgcag cataacatcc cggtacaggc aactttcact  1500
cttttcaagt atttgcaggt ggtaccttca tttaattaca ctgaacgttg gtatacccgt  1560
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attcatggat tctatcgggt gttcaactat tcggccagcc tggctttaag taccaagatg  1680
tatggtatgt accagccgct gtttatgaag aaaaaagaga tacagattcg ccatgtcttt  1740
accccgcaga tttcattgaa tggctctcca gtttcgggc aattctggga atattatcgt  1800
gatgcagacg gtaatgatca gtattactcg ccttattcca gtcagcagtt tggtacagct  1860
ccgcgtgaaa agtccggaac ggttagtttt gatgtgtcga caacttgga gatgaaatac  1920
cgtaacaaga aagactctct tgtgaaagtc agtttgattg atgaaatcgg tttcaatctt  1980
tcttataata tggctgcaaa gaagcaacca tggagtaacc tgaatatgcg tttgcgtatg  2040
aagttcaaga agtttaataa ctatacgctg aatatgaacg cggtattcgc aacctatgcc  2100
tatacattcg ataagtcggg taatgtaata gtgggtgacc gcaccgaatg gtcttatggc  2160
cgcttcgggc gtttccaggg atggggatct tccatcaact atacattcaa taatgatacc  2220
tggaagaagt tgttcgggaa agataaggat aacgatcaaa agaagaaaaa ggacggtgtc  2280
gacgaagaaa aaggaaattc taccggtgac gaagcggtta ctgagaagag ggtagaaaaa  2340
gcacaggcgg atcgtgacgg ttatcaggta tttaagatgc catggtcgct gaatgtgaac  2400
tattcgttcc gtatttccga ggatcgcagt aagccgatca atcgtaatac gatgcgttat  2460
ccgtttaagt atacgcaaaa tatcaacatg tcgggtaacc tgaagatttc caataattgg  2520
tcgtttacat tcaattccgg atatgatttc gaggcaaagg agatcactca gacttcttgc  2580
acgattacac gtgatttgca ttgtttcaat atgtctgcca gtatttcgcc tttcggccgt  2640
```

```
tatcgctatt ataattttac gattcgggct acggcaagta tcctgcgtga cttgaagtgg     2700
gataagagaa gtcagactca aagtaatatt cagtggtatt aa                        2742
```

<210> 3774
<211> 1131
<212> DNA
<213> B.fragilis

<400> 3774
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aaatatccaa ccattatggc gactaaaatt aaattaaacg attgcgtacc ttgtatagcc      60
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ttggcttcac ttatgagcat gcctacttca gtactcaatg atattataaa gggacgtcgt     180
gctgtaactc ctgaagttgc tgttttgcta caggaaattt taggaataga tgcttcatat     240
tggttatcat tacaaaatca atatgatata gaccgagcaa atataaataa gaaaatagta     300
gaacgaaaaa agaatattga gatatggaaa gtaatttctc aatattgttc tgttaaatat     360
ttcgagaaat taaatgttat tggaacgaaa atatcagaaa acataaaaat aatatattca     420
attttcggtg taacttcagt tgaagaacta atagcttcgt tttcttcaga aaaggaactt     480
tcttatttta agaaatctga acggttaaag agtgacccca ttaacatttt ctcatggaaa     540
cattttgctt tctatcaaag ttcacaaatg ctggatgttg ccgattttga tgaaaacagt     600
ttagaaaggc ttgtgcagga attgaatcaa atgtttgttg taaacataaa cactattgat     660
aagacaaaag aaattctatc acgatatgga attaaattta tcatagtgcc taaattcgac     720
aagacaccga ttgatggatt ttcttttggg caaggaaaaa atccaaccat tgtattaaca     780
ttacgattaa acaaaattga taattatgct ttcgctttat tgcatgagat ataccatgtt     840
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aataaatgcg aggaagaagc aaataaattc gccaagtgtt ctttaattgg taaagactta     960
tggaatacat tcctcaaaca acattccatg atatctccac atgcaatgca aatgaaaata    1020
aaacaatttg ctcatcaaca taatatcaat gaggctattg ttttaggatt ttatcagcat    1080
gatattaatt tgtattctat taaaagctca atatcaagag agataaaata g             1131
```

<210> 3775
<211> 195
<212> DNA
<213> B.fragilis

<400> 3775
```
atccacaaaa catataaagc tgaaattcct atatttgtaa taaaaaaaag attactgtcc      60
aaaagtatta taactaaaaa aatcttttac ttttacttat atttctccgg aatcttcctc     120
tcgatgatgg catcaaatac ccgtgacaac tctttaataa ccaaaaaaca tttctgtcac     180
ttgaaaattg ggtaa                                                      195
```

<210> 3776
<211> 1239
<212> DNA
<213> B.fragilis

<400> 3776
```
aatccgagaa cgggctttag aaaacctgaa gcaaattgcg gcaggagaaa gggacttcag      60
gttttgaaaa cgtcgccccg ctctaatcgc ctgcacattg ccttgtttgg taaacgaaac     120
agtggcaagt cgtcattgat caatgcattg accaatcaaa acgccgcttt ggtatcggac     180
atcgccggta ccactaccga ccctgtatat caaccgatgg aaatacatgg tatcggtccg     240
tgtgtattca tcgatacagc cggattcgac gatgaaggtg aactgggttc cctacgtatc     300
gaacgaacct tacaagctgc ggacaaagcc gacatcgcac tgatggtttg ttgcgatacg     360
gaactttccg aagagcaacg atggatagag ttactgaaag agaggaatat cccctacctg     420
ttggtactga ataaagccga tctgttagag aaaccggatg aagtcgccga taaattggaa     480
caacagacag gacaacaccc tttaattgtc agtgccaaag aaaaaacggg catagactca     540
atccgtcagt ctattcttca tcggttaccg gaacttaacg agcaaccgga tattgtggga     600
gacttggcca acgaaggcga tgtggtacta ctcgtgatgc cacaggatat acaggctcct     660
aaagggcgac ttatcctgcc acaagtacaa acactgcgcg aacttcttga caaaaaatgc     720
atcaccttga gctgcacaac cgaccagttg gacaatgccc tcaaagtctt gtcagctccc     780
```

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ccctcattga tcattaccga ttcgcaggtt ttcagaaccg tctacgaaaa gaaaccgcca      840
cagagccggc taacctcctt ctcggtatta tttgcccact acaagggaga cattgactac      900
tataccgaag gagcgtatat catcgaccaa ctgacagaaa attcccgggt cctgatagcc      960
gaagcctgta ctcatgctcc actgtccgaa gacatcggca gagtgaaact tccacgaatg     1020
ttgcgcaaac gtatcggaga gcaactgcat atcgacattg tttccggaaa tgattttcct     1080
aaggacctga attgctacga cctgattatt cattgcggag cctgcatgtt caatcgcaaa     1140
catgtcctga atcggatagt caaagctaaa gcacaaggtg tcccaatgac taactatgga     1200
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<210> 3777
<211> 642
<212> DNA
<213> B.fragilis

<400> 3777
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tttcattggg tgagcagaat gatggaccgt ccggtgcaaa gcattgtttt ctataatgtc     180
cggggatgtc cggtggtgca ttgtatcgaa gcttgtggca agtcgtggtt ggcttatgcg     240
gacagcattc cggatgaaag acggctttcg cgtgcagtag ccggatattg gaatagactg     300
catctggatg ttccggttac tataacagac aattttcatt cgtccggttt ttggatgcag     360
gatcatttgc ttatgttcgg taataaacgt atctgtatgg ttagtgacaa tcgttggcgg     420
aacaaaaccg ctgctgaatc gtttaacata gattatttgt atgtatgcaa aggctataca     480
ggaaagttgg agtcattggt aggtttgttt cattgccggg aagttatttt ggattcttct     540
ctgtctgctt attataaaga ggcttatagt gaagaatgtc gccggttggg gttgcatttt     600
atctcccttt ccgacgaagg ttctgtgagg tttttgctct aa                       642
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<210> 3778
<211> 369
<212> DNA
<213> B.fragilis

<400> 3778
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gaaggtgctg agattatcaa tgaagaaaac tggggactga agaaactggc ttatccaatc     180
cagaagaagt ctacaggatt ctatcagttg attgagttca atgcagaacc tactgtaatt     240
gacaagttgg aattaaattt ccgtcgtgat gaacgtgtaa tccgtttctt gactttcaga     300
atggataaat acgctgcaga atatgctgca aagagaagaa gtgttaaatc aaacaaaaag     360
gaggattaa                                                            369
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<210> 3779
<211> 1533
<212> DNA
<213> B.fragilis

<400> 3779
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tgcacgcttg cagaatactc ctacaagccg tatctttgta accctaattc taaatactca      60
aatatggctt tcaccaacaa cgtaatgatt gtgcgccaca agttgctggc aaaattggta     120
aatctctgga aagagaacaa attaacgaat gaaattgaca gacttcccat tgaactgagc     180
cctcgccgtt cacgcccgct cggacgctgc tgtatccaca agagcgtgc tgtatacaaa      240
tataaacttt tcccgttgtt gggtttcgat atgacagacg aaacggacga gctcactcca     300
ctttcggaat acgcacgcca ggcgttggaa cgtaaaaaca aacagaaaga aaatatactc     360
tgcgtcatcg atgaagcttg ttcatcttgc gtacaggtta actatgaggt gaccaacctc     420
tgccgtggtt gtgtagcccg cagttgctat atgaactgcc ccaaggatgc catccgtttc     480
cgaaaaaacg gacaggcaaa gattgaccac gacgcttgta tcagttgcgg gaagtgccat     540
caaagctgtc cgtaccacgc catcgtattc attccggttc cttgcgaaga agcctgtccc     600
gtgaaagcta tcagcaaaga cgagaacggt atcgaacata ttgatgagag caaatgtatc     660
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tttgatgtcc ttgaaggcat ccgtagcggt gaaaagatga tagcgatacc tgctccctct    780
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tttgccgatg tagtcgaagt agcgcaggga gctatggaca ccgtaagtca cgaagctgcc    900
gaactgaaag aaaagctaga ggaaggacag ccgtttatga caacctcttg ctgcccgtct    960
tacatcgaat tagtgaacaa gcacataccg ggaatgaagc cttatgtttc ttctacggga   1020
tccccgatgt attatgccgc ccgcatcgcc aaggaacgcc acccggatgc aaagatcgtg   1080
tttatcggcc cgtgtgtggc caaacgtaaa gaagcccgcc gcgatgaatg cgtggactac   1140
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acacagccat tctcagtact ctatacttcg gtacgcgagg cacacggttt tgctcaggca   1260
ggtggtgtaa tgggagctat taaggcctac ttaggcgaag aggctaagaa attctccgcc   1320
atccaggtct cggacctgaa caagaaaaac ataggcttgc tgcgtgctgc tgccaaaaca   1380
ggcaaagcac aaggacagtt cattgaagtc atggcctgcg aaggcggatg tatcagcggc   1440
cccagtgccc ataatgacgc tatcggtgga cgccggcagt tgaaccagga actgataaaa   1500
cgccgtgaat catatgaaga aactcataga taa                                 1533
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<210> 3780
<211> 2406
<212> DNA
<213> B.fragilis

<400> 3780

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attggaatag ctgaaaaaaa ctatctttgc atatcaacaa cacatcacaa agataagatt     60
atgaagaaaa aagtactttc cttgctggca ttccttccgg catttacgac agtgatggcc    120
cagcagacgg cagaagtgcc ggatgtatgt gcatttgtca acccgatcat cggaaccaat    180
ggtatggggc atacatttcc cggtgcttgt gctccgttcg gacttgtaca gttaagtccg    240
gatacagata cgattcctca caacatagat ggaacttatc aaagaaatgc gtatgaatat    300
tgtgccggat atcagtatca tgatccgaca attgtgggat tcagccatac ccatctgagt    360
ggtacgggac attcggatct gggtgatatt ttgattatgc ccgccacagg tcaactgaag    420
ttgaatcccg gaagagccgg tactcctgac gagggatacc gctcccgttt cagtcatgac    480
acagaggttg ctcgtccggg gtattatgaa gtggagcttg ctgattatgg cataaaggca    540
caactgacag ctactcaacg ggtaggaata cataaatata ctttttcccga taatgcggac    600
gggcacatca tccttgacct gatacacgga atctacaact atgatggaaa aactctatgg    660
gctaatttac gtgtggaaaa tgacacatta ctgacgggct atcgtataac gaacggatgg    720
gcacgtacca attatacata ttttgccatc tctttgtctc agcccatcaa ggattatggg    780
tatacggata aagggaaagc tctgtataaa ggttttttggc gacggtttaa taccgaccgt    840
aattttccgg aaatgaccgg tcggaagctg gtggcttact ttaatttcga tacccggcag    900
aatccggagc tagtgataaa agtcgctctt tcggctgtga gcacagaagg tgcagtaaag    960
aatttacagg cagaggctgc cggaaaaact ttcaatcaat tggttgccga ggcaaattct   1020
gcatggaatc gtgagttgga tgtactcgaa gccaaaggaa ctcccgatca gttggccatg   1080
ttttatactt cattgtatca taccatgatt aacccgtctg tttatatgga tgtagacggt   1140
cggtatcgtg gactcgatca taatatccat acttccgaag gatttaccaa ttatactatc   1200
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gcaatggatc atacagctaa tgttccttat tacgaaggag ttgaagctta taaaagattg   1500
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gacgattgga ctatttaccg gacggctctg ttggcgggag acgaccagtt ggccgatctt   1620
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agaaggtatg tacatggcaa tgagcccagt catcacattc cgtatctgta tgcctggact   1980
tcccaaccct ggaagacgca atactggctg cggacggtca tgaaccggat gtataaaaat   2040
gatattgacg gcctgggcgg caatgacgat tgcggccaga tgtctgcctg gtatctgttt   2100
acggcaatgg gattttatcc ggtttgcccg ggtactgacc aatatgtatt gggagcacct   2160
tatctgccgt atatccgtat gaatctgccc aatggccgca ctttcgaaat aaaagcgcca   2220
aaggtgagcg atcgtaactg ctatgtccgg caggtgaagc tgaacggaaa ggtttatgat   2280
```

```
aagatgtata ttactcatgc cgacctttg gcgggaggaa cacttgagtt tgatatggct      2340
gcttctccga ataaaaagag ggggcttgcc aaagaagcta aaccttattc catgtctgaa      2400
gagtag                                                                 2406
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<210> 3781
<211> 546
<212> DNA
<213> B.fragilis

<400> 3781

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cagaataaat cattctatga cttcacagtg aagaccatag atggcaaaga gtatccactg      120
tcaggtctga aaggtaagaa ggtgctggta gtgaatgtcg cctccaagtg tggactgact      180
ccgcaatatg cagagttgca ggagttgtat gatcagtata aagatcagaa ttttgtgatt      240
atcggctttc ctgccaataa cttcatggga caagagccgg ggacaaacga agagatcgcc      300
aaattttgtt cggtgaacta tgatgttacc ttcccgataa tggccaagat atcggtaaag      360
ggtaaagata tggctccgct ttaccactgg ttgacagaga agaagctgaa cggaaagcaa      420
gatgcgccgg tacagtggaa tttttcagaag tttatgattg atgagaatgg aaattgggtt      480
ggttttgtag ctcccaaaga gagtcctttt tcagagacga taatcagttg gatagaaaaa      540
aagtaa                                                                 546
```

<210> 3782
<211> 2364
<212> DNA
<213> B.fragilis

<400> 3782

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agaaaggagg ctttagtgag acgactcaaa aactcaaaac aatttaataa gaacatgaaa       60
aaactgattc tgcttctcat tttgattttt tcattgcctg ttgcagcaca aaatttcaca      120
atcgggaaga gcactttcct tttgaatggc aagccttta cggttaaggc tgccgagttg       180
cattataccc gtattccggc tccttactgg gagcatcgta tcgagatgtg taaggcattg      240
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tttgactta ccggacaaaa tgatatagcc gcttttgcc gcctggctca gaagcatggg      360
atgtatgtga ttgtacgccc gggtccttat gtttgtgccg aatgggagat gggcggactt      420
ccttggtggt tactgaagaa gaaagatatt atacttcgta cactcgatcc ttattttatg      480
gagcgcactg caatctttat gaaagaagtc ggaaaacagc ttgcaccttt gcaaattact      540
cgcggaggaa acattatcat ggtgcaggta gaaaatgaat atggtgctta tgcagttgac      600
aaaccctatg tttcggctat tcgtgatata gtgaaaagtg ccgggtttac cgaagttcct      660
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cgtccggaga ctccattaat gtgtagtgag ttctggagtg gatggtttga tcattgggga      840
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cgtaatattt cattcagtct ctatatggcc catggaggta ctactttcgg gcattggggt      960
ggtgccaaca atccgtctta ctccgctatg tgtagttctt acgattacga tgcgcctatc      1020
agtgagccgg gatggactac ggacaaatat ttccagcttc gtgatctgct gagaaattat      1080
ctgcctgcag gagaacaatt gcctgagatt cccgaagctt ttccggtgat tgagatacct      1140
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gattattcgt ttgtgcaaga taaaagatat aaaaatggga cagctcagac tatgcctgcg      1620
tattatagga ctaccttccg tttggataaa gttggcgata cgttccttga catgagtact      1680
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gttcttgatt tgaaaggccc tgagaaagca tctatccgcg gactgaagaa gcccatcttg      1860
gattggttac gcaatgaagg ggcttctacc catcgcaaag agggtgaaca actggacttg      1920
```

```
agtcgggaaa ctcccgttgc cgaaggtacg tttgttccgg gcaacggatg gcaggaagtt    1980
tgctttgatc gtcagagtat cggtcgttat ttctgccttg aggccctttc ggcacaaaaa    2040
ggaaagaaga tagcagccat cgccgaactt gatgtactgg gtgccgacgg taagccaatt    2100
tcacgtgaaa agtggagaat acgctatgcc gacagcgaag agacacgtag cggtaactgt    2160
acgggagata aagtgttcga ccttcaggaa tccacttact ggatgacggt ggctaaagat    2220
gcttatcctc atcaattagt catcgatctg ggtggagact ataccgtaac cggtttccgc    2280
tatttgcccc gtgccgaaaa gggatatccc ggcatgataa aagattaccg ggtgtacgtc    2340
aaaggggaag attttcaata ctga                                          2364
```

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<210> 3783
<211> 1080
<212> DNA
<213> B.fragilis
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<400> 3783
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attggtccgg acaatatggt aatcaccggg cgtacaatgg attggaaaga ggatattcag    180
tctaacctgt atcttttccc tcgcggtatc aaacgggccg gatataataa aggaaatacg    240
gtagagtgga tttcgaagta cggtagcatt gtagcaaccg gatatgatat cggtacttgt    300
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gagtatcagg tgatgactaa ttcaccccgt tatgatctac agttggctgt gaatgattat    660
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gtacgcgctt ctttctatat tcatgctatt ccgcagactt cggatgcaaa aattgccgta    780
ccgagtgtgt tgagcgtcat gcgtaatgtt tctgttcctt ttggaattac gactccggat    840
aagccttaca tttcttccac tcgttggcgt tcggtttccg atcaaaaaaa tcgggtatac    900
tattttgagt ctactttaac tcctaacctt ttctggatag atttacataa agtcgatttt    960
agtccgaatg caagtattaa gaaattgtct ttgactcacg gagaggttta tgcaggagat   1020
gtagtgaaag atttcaaaga cagtagatcg tttacatta tgtttgaatt acccaaataa   1080
```

```
<210> 3784
<211> 1416
<212> DNA
<213> B.fragilis
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```
<400> 3784
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tcggcttatg ccactttgat tcgcaaaaca tgcaaatcaa aaagtaacaa gatagtagtg    180
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tcttatcgca aagacttgac ctataataaa aaacatatcg acagtgtatt ggcactcgat    540
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tctgtaggag gtatcatcct gcccgaattg ttggaacgtc tggggtgaa acacgtcgaa    660
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ctgggagata tcatgaacct gatgaagggt ggaaaagctg atgtagcgtt tgtcgttgac    780
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acactggtta cggtggcaga ctatgtattg aaacatactc cgggcaatac tgtatccaat    900
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tctgctgtag gcgaagtaaa tgtagtgacc aagatgaaag caacaaatgc cgtgatcggt   1020
ggtgaaggaa acggtggagt gatttatcca gccagtcact acggacgtga tgctttggta   1080
ggtatcgcat tattccttag ccatttggca cacgaaggta agaaggttag tgagttgcgt   1140
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gcaacttatc ctccttattt cattgccaag aaccgtgtcg atctgactcc ggaaatcgat    1200
gtagatgcca ttcttgctaa agtgaaagat atctataaga atgaagagat caatgatatt    1260
gacggtgtga aaattgactt tgccgataag tgggtacact tgcgtaagag taataccgaa    1320
ccgatcatcc gtatatatag cgaagcatcg actatggagg ctgctgagga gatcgggcag    1380
aagattatga acgtaatcaa cgaattggct aagtaa                              1416
```

<210> 3785
<211> 915
<212> DNA
<213> B.fragilis

<400> 3785
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actgacagct acaaccggta ccggcattgg gctggtcaat ctcgacaaac gctatcgcct    60
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catccggaaa gacctatgaa agcaatcatc attgaagacg aaaaagcagc ggtacgaaac    180
ctgacttcac tactcggcga agtctgcccg caaatagaaa tcgtaacgga actcgacagt    240
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gattatttac tgaaacctat cggaagacag gatatagaac aggcattaga aaaactgacc    480
ctgttcagtt ccggcaactc caaacctacc ggtccggaaa caaacgaact tgtgaacctg    540
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gataaactgc tccccgtttc ggttgatatg atcctgttgt tctacatcag agattgccag    660
gtgaaagctg ttctgacaga cggaacggaa tattcattcc cacaaaccct cgacgaattg    720
accgaatgtc tggacccgac actctttttc cgggccaacc gccaatatct cctttcacgg    780
gaagccatca aggatataga cctctggttc aacagtcgtc tttccatcaa tcttcgtcat    840
tcggtatcag gagagaagat tttagtcagt aaagcacgtg tagccgaatt aaagagtgg    900
ttcagcgtta aataa                                                    915
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<210> 3786
<211> 258
<212> DNA
<213> B.fragilis

<400> 3786
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agattttctc ttctacttcc cccaaagaag ctgtgtagag acacttttca ccacggaaca    60
cagagtaaca cagagttttt tttgttaata atcaacaatt taaaattgcc actgtgttac    120
tctgtatctt ctgtggtgag ttttaacacc ttaaattact tttttttctat ccaactgatt   180
atcgtctctg aaaaaggact ctctttggga gctacaaaac caacccaatt tccattctca    240
tcaatcataa acttctga                                                 258
```

<210> 3787
<211> 882
<212> DNA
<213> B.fragilis

<400> 3787
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acaatgaaat atacagaccg ggaacttgac cgattactgg agaaacttat cgcatccacc    60
cgctcgccca gaggaaaatt ctcggcagcg gcaagctatc agatattaga gaaacgattg    120
ccgcgtccgg cacttcgcct cttctctta cgcaccttgt cggcagtagc tgccatcgct     180
ttgctctgct tcataggatg gaacacttac tgctatctga aacctgccgc cctacagaca    240
atttccacac tggccgatac gcggaccatc aaactgcccg acggaacgga agtgacgctg    300
aaccatttct cgtcactcac ctatcccgaa aagtttaagg gagaacacag gaagtgaac     360
ctgaaaggag aagcgtattt cgaagtgacg aaaaatagga aacactcttt catcgtacag    420
acagagtcgg tcaatgtaga ggtactgggc actcacttta acgtagagtc ctatccggac    480
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tctgtacgta tcgtcttgaa accaaacgaa agtgctatat ataataagga gaaaaaaagc    600
atgacccttg aagtttcaga ccgcgttgcc gaagagatag cctggcggaa cggagaattg    660
attttacca atctccccctt gcaggagatt gcccgccagt tgtccaacac atttggcgta     720
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```
gatatctcca taacagacac tgctttgcag aattaccgga tcacggcacg gttctccagt    780
gaagaaggtc tcgaccagat tctcgatctg ctacatactg ttggcaattt caactattca    840
tacaataata aagaaataac gattactact aaacttaact ag                       882
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<210> 3788
<211> 1110
<212> DNA
<213> B.fragilis

<400> 3788

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gtgcttatcc attttcccga atcagtctct cttttttgacg gatttgagag tcataccctt    180
tttcccggga tgaaattcgc tgatgtagcc aacgagatcc tctttacctt tttgtcattg    240
ctgattctgt ttgcagtcaa cacccgactg tttcatttca atcagacctc aatgaaaatc    300
acatggcaaa aaattattct ctcttttgta ctaacctgga tattaagcaa tttcctggga    360
caatgctttg tatatttgca caagacattt gatattcccg ctatagatgc catggtgcac    420
cactacctgc atccattacg cgatttcatt atgtctagcc tagtgaccag cagttgctat    480
atcatctacc tgatccgtcg ccaacaacaa gtaattgttg aaaacgaaca attaaaggca    540
gaaaacatac gcaaccagtt cgaagtgctg aaaaaccaac tgaacccaca catgctttc     600
aattcgctca atacgctgcg ttcgctcgtt cgtgaaaatc aagaccgggc acaagattac    660
atccaggaac tgtcacgcgt attacgatac acattgcaag gcaacgagtc gcaatgcgtc    720
actctacgtg aagaaatgga ctttgtgtca gcctacatct ttctccttaa aatgcgtttt    780
gaagataatc tgcgattcga gatcaatata actcataatt ccgaagagta tttgcttccc    840
cccatgtcca tacagatgct gattgaaaat gccgtaaagc ataatgaaat cagcaaccgc    900
cgtcctctta ccatcacaat cgcgaccgat tcggaagaag gactcctggt aagcaatccc    960
atacagtcta aactgacagc tacaaccggt accggcattg ggctggtcaa tctcgacaaa   1020
cgctatcgcc tcttgttccg acaagaaata caaatcacag aagacagaaa cttcaccgtt   1080
cgtataccc tcatccggaa agacctatga                                     1110
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<210> 3789
<211> 1398
<212> DNA
<213> B.fragilis

<400> 3789

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atagatttgt atctttgcac cctcaaaata ataggtatga caggacaaaa gacgcccact     60
gcgctgggca ccgaaaagat tggaaaactc ttgatgcagt atgccattcc ggctattatc    120
gctatgaccg catcttcact ttacaacatg gtagacagca tttttattgg tcacggggtt    180
ggtccgatgg ctatttcggg gcttgctctg acatttccgc tgatgaatct tgcggcggct    240
ttcggttcgc tggtcggagt gggggctgcc acgctggttt cggtaaagct gggacaaaaa    300
gattacgata cggcgcaacg tgtgctggga aatgtattgg tgctgaatat catcatcggg    360
cttgctttta cgatacttac ccttattttt ctcgatccta tcctttattt tttcggaggc    420
agcgacgaga ctgtggggta tgcccgcgat tatatgaaag tgatcctttca tggtaatgtc    480
attacccatc tttacctggg actgaatgcc gtgcttcgtt cggccggtca tccgcaaaag    540
gcaatgtatg ccactattgc tacagtggtt atcaatacga ttctcgatcc tctgtttatt    600
tacggcttcg gctggggcat tcaaggagca gccatagcca ctatcctggc acaggtcatt    660
tctctgatgt ggcagttcag gctattcagc aataaggaag agttgctcca ttttcatcgg    720
ggcattttcc ggttgaaacg gaaaatcgta ttcgactcgc tcgccatcgg tatggctcct    780
ttcctgatga accttgcgtc gtgtttatc gtaatcctga ttaaccaggg gttgaaaaaa    840
tatggcggag atcttgctat cggtgcgttt ggtattgtca atcgtcttgt tttcttgttt    900
gtgatgattg tgatggggct gaaccaaggg atgcagccca tagccggata taatttcggc    960
gcccggctct atccccgggt gacccgtgtg ttgaagctta ccatttatgg agccaccatt   1020
gtaacaacta cgggtttcct gatgggaatg ttgatccccg gcttggccgt atctatcttt   1080
acttcccacg aagaattgat ccgtcagtcg ccgaaggac ttcggattgt ggtgctgttt   1140
ttcccgatag tcgggttcca gatggtgacg tcgaacttct ttcaaagcat cgggatggcg   1200
agtaaagcta tctttctgtc tatcacccgt caggtgctga tactgattcc ctgcctgttg   1260
atcctgcccc ggtatttcgg tcagacaggc gtatgggtaa gtatgcctgt ttccgacttg   1320
atagccagtc tgatctcggc agggatgttg tggtggcagt ccgcttgtt ccgtatccat   1380
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ggcagacagg ctgcctga   1398

<210> 3790
<211> 357
<212> DNA
<213> B.fragilis

<400> 3790
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ctaattgagt tgttggaaga gggttgcacc aacgacaaaa gatacaagag acttcctaag   120
gatgtaatca aaggttatat aaaaagcatat aatcatttaa aagcagccac aagaatagaa   180
gatttattca gaatcggaag tctgcattat gaacgattga aaggagactt aaaagacttt   240
gaatcggtta gatgtaccgg acggtggaga ttaatatttc aaagctccac aatagacggt   300
tcattgataa ttactgaaat agaattaata gaaatatcca accattatgg cgactaa   357

<210> 3791
<211> 1599
<212> DNA
<213> B.fragilis

<400> 3791
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gatgacataa ttaccattca tagtactttt gtatattggt tcaatagcaa acatacacat   120
tatttccgaa agaagaaaat aaataatgta ccaatataca gagtgccgca tttcttatca   180
attggtaact tttatccatt ttcagagtcg tatctttgca gccgcaaaaa aataaacatt   240
gtttttatga aggacagcat tgacttcgga aatatggaaa ttccgagact attcaggaaa   300
ttattgattc caacagtact tggaatggtc ttttccgccg tgtttgtaat caccgacggt   360
atatttgtcg gtaaaggtat aggcagtgat gccctggcag cggtcaacat cacggctccg   420
ctatttatga taaccaccgg catcggactg atgtttggag tgggcgcatc tgttgtagct   480
tccattcacc tgtcacaagg taaacgaaaa gttgcgagta tcaacatcac acaggcactt   540
gcctttttcgg ccttacttat tctagtgcta tcggcactct gctgctattt cgcagagcct   600
atcggccgat tactcggcag ctcggaacgg ttgttgcctc tggtggtgga gtatatgaat   660
tggtacgtac cttttcctcgt attctacctg ctcctaagcg ccggcatgtt ttacatccgc   720
ctggacggat cgcccaacta tgccatgatg tgcaacgccg tatcggccat tatcaatatc   780
atactcgatt atgtcttcat tttccaattg ggctggggaa tgatgggagc tgcttttgcc   840
accagcctgg gcactatggt cggcggattg atgacactca tttatctcct ccgttttttcc   900
cgtaacgtag gtatttaccg tatcaagctg agccggaaaa gcatgcggct tacctgccgt   960
aacatcggct acatgatcag gctgggatct tccgccttta tcagcgaggc atccattgcc   1020
agcatgatgt tcctggggaa ttatgtattt atcagccatt tgggagaaag cggtgtagcc   1080
gcattcagca ttgtatgtta cttctttcct atcattttta tggtatacaa tgccatcgcc   1140
caatcggcac aacccatcat cagctataat ttcggacaac agaacccggg acgggtcgca   1200
cgtaccatcc ggttggcatt gaagacagct ttaggctgcg gcattttttt cttttgctgcc   1260
actctggtat tcaatcacca aatagtcggg ctgtttatcg ataaaagcta ccaagcctat   1320
gatattgcgg taaacggtat tccttacttt gcagtcggct atctgttttt tgcgctcaac   1380
atagtgggca tcggctatta tcaaagtatc gaacgtgccc ggcgcgccac tgtcatcacc   1440
cttttccggg gaacattgtt catgctggca ggtttcctgc tcttgcctcc ggtgctggga   1500
gtaaggggca tttggctggc cgttcctttg ggcgaactgc tgaccttatt gcttattatc   1560
ggaatttacc tgaaggactc tttcgccgtt cgccgatga   1599

<210> 3792
<211> 510
<212> DNA
<213> B.fragilis

<400> 3792
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gccgaaggga tcagagaact ctattttgcc atccagcgga aacttcagaa aagaggcggc   120
aagaacgaag aagaccttgc cgaaatcctt tcggcaaaca gttcacgaag caaaggggaa   180
gtattgagca tcctcaccga tctgccggac gtgatagaag agatattgaa aaatggagaa   240

```
tccgtatcca tcagagggtt gggatcgttt catgcctcca ttacaagcaa tggcttcgag    300
catccggaag atgtattgcc tcacgaggta cgggtatcca aagtatattt cattgccgac    360
cgcaagttta cccaacgtgt cagccggatg aaattctttc gctacccact atccaaatat    420
ttcccaaagg acttgttacg acccgaaaca atcagggaag aagagactcg ggaagaggaa    480
ccggagttca ttcctgacga tgacgaatga                                     510
```

<210> 3793
<211> 438
<212> DNA
<213> B.fragilis

<400> 3793

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atatcccggc aacttacctt tgtaccgaca ttcaaacact taaagactat gtttaaagcc     60
attgtacgtt tttccataaa aaagaaatta tttgtaggac ttactacact cttccttctt    120
atcggaggca tatatgcaat gttgactctg ccgatcgatg ccgtaccgga catcaccaac    180
aatcaggtac agatcgtaac agtctctccc acacttgccc ctcaggaagt agaacaatta    240
atcacgatgc ccatcgaaat tgccatgagc aatatcatga acgtggaaga tattcgtttc    300
gtaagtcgct ttcgattgtc ggtggtaaca gtcgtattta aagaaagcgt accgaccctc    360
gatgcccgac agttaattaa cgaacagatt caatcggtag ccggagaaaa tccaccggag    420
ctgggcatgc cgaaatga                                                  438
```

<210> 3794
<211> 723
<212> DNA
<213> B.fragilis

<400> 3794

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gaaatgcggc actctgtata ttggtacatt atttattttc ttctttcgga aataatgtgt     60
atgtttgcta ttgaaccaat atacaaaagt actatgaatg gtaattatgt catcaatatc    120
ggccgtcagt tgggcagtgg cggaaaagag atcggagaaa aattggcagc caggttaggc    180
atcgatttct atgataaaga gctgattaat ctggcttcgg aggaaagcgg actctgtcgg    240
gagttttcg agaaagccga cgagaaagcc tctcagggta ttatcggcgg gttgtttggg    300
atgcgttttc cttttattag tgatggtgcc atgccttgca ccaattgcct gagcaatgat    360
gctctttta aaatccagag tgatgtcatc cggcatcttg cggcaaataa atcctgtgtg    420
tttgtggggc ggtgtgccga ttacatcttg cgtgaacatc ccgttgtgc caatattttc    480
atttctgctt cgcaagagga tcgtatagcc cgtctgtgtc gcatccacgg aatttctgaa    540
gaagcagccg cagáaaaaat gaataaggcg gataagaagc gttcagaata ttataattac    600
tatagctata aaacctgggg agcagctgcg acctatcatc tttgcatcga ttcttcggta    660
ttgggaattg atgaaacggt aaggtttata gaagaatttg tggtgaagaa actggctttg    720
taa                                                                  723
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<210> 3795
<211> 2340
<212> DNA
<213> B.fragilis

<400> 3795

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tatcatatta aaaacaatcc aatatttatt cctatgacaa aaccttctta caaacagtgg     60
atagcagcct gtactctcac gagtacattg ctattgggag cttgcggttc cgctcccgtt    120
accagagacg catcaatcgt accgttgcct aaccaaattc aacaatccgg caacgctttt    180
gtactaaccc cgaacactac aatcggtacc accgacccgg aattacagcc agccgcccaa    240
tacctgaaag aaattctttc ggccgccacg ggctacgacc ttcaggttaa agagggcaag    300
gggacaatca ctcttgcgaa agccaacatc gaaggaaaag aaggtgccta tacactttcg    360
gcaaaatcag accggataga catcacaggc aactcttatg gaggggtgat agccggtatc    420
gaatcgcttc gccagttatt cccaccgcaa atcgaatcca acaaatcgt agacagtgtg    480
gcatgggcca ttcccacggc agagattcaa gacgcccccc gattcgagtg gcgcgggatt    540
atgctcgatg tatcccgtca cttctacacc aaagaggagg taaagaatt actcgacctg    600
atggcactct acaaaatgaa taagttccac tggcatctga cagacgatca aggttggcgc    660
atcgaaataa aaaaatatcc gttactgacg gagaaaggcg catggcgtac ctttaattca    720
```

```
cacgacagat cgtgtatgaa gtccgctaaa tcagaagaca atccggattt tctgattccg    780
gaaaacaaac tccgcatcat cgaaggcgac acattatatg gcggatacta tacgcaggag    840
gatatcaaag aagtgattga atatgccaaa gtacgcggga tagatatcat tcccgaaatt    900
gacatgccgg gacatatgtt ggctgctgtc agcaactatt ccggagtagc ctgtaccgat    960
aaagtaggct ggggaaccac tttctcctca cccgtctgcc ccggaaaaga atcggcaatg   1020
gaattctgta agaatgtata tagtgaactg atcgacctgt ttccctacaa atatgtacac   1080
atcggaggag atgaagttga aaaagcaaac tggaagaaat gtcccgattg ccagaaacgt   1140
atgcgggata atcatctgaa aaccgaagaa gagctgcaat cctggtttat ccacgatatg   1200
gagaaatttt tcaatgcaaa ggggaaagag atgatcggct gggacgaaat catcgaaggc   1260
ggactgagcc cgacggctac cgtaatgtgg tggagaagct gggcaaaaga tgctcccgca   1320
aagacaactc aacaggggaa ctccatcatt ttcactccaa acggacagtt ctatctggat   1380
tatcaggaag acaaaaactc tgtacgcaat atttataact tcaatccggc aatcgaagga   1440
ttgacttccg aacaacaggc attagtcaaa ggcgtacaag gaaacatctg gtgtgaatgg   1500
attccttcac gcgaacgcat gcagtatatg gctgttccac gcttgctggc tattgccgaa   1560
ctgggttgga gccaaccctc acaaaagaac tggaatgact ttgcacaacg catggcaaac   1620
caattcgaac gcctcaacat catgggtatc aattatcgca tccccgactt ggaaggcttc   1680
catcgcaaca atgctttat cggtgaagga accgtaaagg taacctgcct cgatcccaat   1740
gccgaaattc attatacgac ggacggcagc actcctactc tgcaatcgcc taaatacgaa   1800
gggcctattc aagtaaaaga aacaacggac tttacgttcc gcaccttccg tcccaacgga   1860
aaagccggtg acatctcccg gacacgcttc atcaagagcg aatatgctcc ggctacgact   1920
gtcactccct ctgccaaagg attgcaggct gaatggtatg agtttaaagg caacaagtgt   1980
gcagacatca ctaaagcacc gctgaacgga acttacccga tagaaaaagt tatgattccc   2040
gaaaaggcaa aaggaaatat aggactggtt atcaaagggt ttattaatgt gccgaaagac   2100
gatatctata cctttgccct tttgtcggat gacggcagta cgctggtaat agacggtgaa   2160
caggtgatcg ataacgacgg accgcacggg ccgcgtgaag ttatcggcca gaaagcatta   2220
tcgaaagggt atcatccgat agaagtacgc tattttgacc aaaacggtgg ccaactgaaa   2280
atgacggtaa ccggcactga aggaaacgaa attccgacaa gtgacttata tgcaaactaa   2340
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<210> 3796
<211> 1743
<212> DNA
<213> B.fragilis

<400> 3796
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aaacgtgcaa tgataaaaga aaacttcatt aaactctacg agaacagttt ccgtgaaaac    120
tgggatttac cttgctacac caactatggc gaaccggaaa gttatatccta cggtgaagta    180
gccgaagaaa tagccaaact tcatttactg ttcaagcact gtagtttgcg acggggagat    240
aaaatagccg ttatcggaaa gaataatgcc cgctggtgca tcgcttacat ggctaccatc    300
acatacggag ccatcatagt gcccatcttg caggacttca atccgaacga cgtacaccat    360
attgtcaatc attccgaatc cgttttcctt ttcaccagtg acaccatctg ggagaatctg    420
gaagaagaac gcctgacggg tatccgtgct gtcttttcac tgaccgactt ccgttgcctg    480
caccagaggg acggagaaac agtacagaaa ttcctgaagc atatcgatca gtacatgaca    540
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aaggtgatgc tgctgaacta tacttccggc accaccggat tcagcaaagg agtgatgctg    660
acaggcaaca acctggccgg caacgtgact ttcggtatcc gtacggaact gctgaaaaag    720
ggtgataaag tgctttcttt ccttccgctg gctcatgctt atggatgcgc cttcgacttt    780
ctgacagcca cggcagtcgg tacgcatgta acccttctcg gtaaagtgcc ctcacccaaa    840
atcatcatga aagcattcga agaggtgaaa ccgaatctga ttattacggt accgctggtc    900
atcgagaaaa tctataaaaa cgtgatccag cccatcatca gcaaaaaagg aatgaaatgg    960
gccttgagca ttcctctact ggataatcag atttatggcc agatccgcaa aaagctgatc   1020
gatgcgcttg gcggacgctt caaagaaatc attatcggtg gagccgccat gaacccggaa   1080
gtagaagagt ttttccacaa aatcaagttc cccttcacca ttggctacgg catgacggaa   1140
tgcggtccgc ttatcagtta tgctccttgg gacaaattcg tcccctcttc atcgggcaaa   1200
atactcgata ttatggaagc ccgcatctat aaagagaatc ccgaagccga gaccggagag   1260
attcaggtac ggggagagaa cgtaatgacc ggatattata agaacccgga agccactcag   1320
gaagtgttca ctaaagacgg atggttgcgc accggtgact taggcaccat ggatgacgaa   1380
ggcaatatct tcattcgcgg ccgactgaag acgatgatcc tcagttcaag cggacagaac   1440
atcttccccg aagaaatcga ggctaaactt aataatcttc catttattct tgaaagtctc   1500
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gtgatcgaac gaaacaaaaa actggttgcc ctggtctacg ccgattatga agctttggac    1560
tctttaggac tcaaccacga agacaactta aaaacgatca tggacgagaa tctgaagaat    1620
ctgaataata atgtagccgc ctacgaaaaa gtaagccaga tccaactcta ccccactgag    1680
tttgagaaaa ctccgaaaag aagtatcaaa cgctatctat ataacagtat agcagaagat    1740
tag                                                                  1743
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<210> 3797
<211> 210
<212> DNA
<213> B.fragilis

<400> 3797

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ctggaatata ataatctatt aaaatacaca cacatgaaag gcttattaaa gaatttagga    60
ttgctattaa tcttagtcgg agtaatcatt ctgattgctt gctctctgac cggagaagta    120
aacaacaacg ctgtcttggg aggctcgata gtattggtgg tactcggact gattacttat    180
attgcgataa acaaaagaat tgcagattaa                                     210
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<210> 3798
<211> 1434
<212> DNA
<213> B.fragilis

<400> 3798

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aacactaata agatgaaaaa acttttatta atcctcctac tggtactggc aggagaaatc    60
agcgcacaac aagcagcaac gattgtagtc aagactaccc cggacaacga aattgcttat    120
tggcctacag gcaaagaaca cctgttctgc attgctctgg gaaccaaagc acaagccggc    180
cctctgggag aatttgtcca tcaattccgc accgaccgcc ccggcatggt gcaggtatgg    240
acccaaggga gtgattcttt tacactctac ctgacaccgg gaagcaaaga caccattacc    300
gtgaccaaag ataccctgat catcagcggt acaaactcgg cctataaccg atgcctgaaa    360
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cgaggaatca cttcactgga gcaatatcac cggctggcag acgccagaat gcggcaggca    480
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atcgattaca tccgccgatc tatatttata cacattgcaa ggcagctgtc gagaaaagaa    600
aaactacccg aagattggca aagagaactg acagaagtca tcaattcatc cgtcaacggt    660
gattatctgc gttcctaccg cggaatcgga ttctttgtaa acgacctggt tatgatgcag    720
ttcaccaacc tcgaaaacgg tgacctcaaa gagataaagg attacgcctc cttcctcttc    780
gaccggtatc ggaagttctt cacaggagac aatctgcaat acatgcaggc ccagcttatc    840
tacgaagatg aatttcaggg tagcaaaact ccttcgatcc cccaactata cgaaacttat    900
agggcagagt tccccaacag tccttttttg aacgtactcg aaccgggcgt taaagaaaac    960
ctgcgctttc agaatagccg tatcaccgac aaagactatc atattctgac atgcgactcc    1020
accatcacca gtctggagga tgcggtaaaa cccttaaag gtaaagttgt ctatatcgat    1080
gtatgggcta cctggtgcgg tccctgcctc aaagagttcc aatacctgcc cgccctcaag    1140
gaaaaagcgc acaacatgga cgttgtatac ctatacattt cgatagaccg tccggaggag    1200
cggaagaaat gggaaaagac catcgcatac catcaactga aggttatca tttattagta    1260
aacgaaaagt taggaaaatc gctatacacc gaattgggaa acgaacggca aatactgagt    1320
atcccctgct ttgtcattat tgataagacg ggaaagatag tcattcgcca tgccgcagca    1380
ccgagtgaac ccgaaaaagt gatcgaacag ttgagcacct attataacaa gtaa          1434
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<210> 3799
<211> 1272
<212> DNA
<213> B.fragilis

<400> 3799

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aaaagtaata aaaaaaatcc atttacactg agtagatttc gaaactctgt ttgtcttttt    60
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aatgacggga ctttcctgga ttcgatgcaa caccctacgg agcaaagtga aagttctgg     180
tcacaactgg aaaaggaaaa tgaaactttt gccggagaat tacgtatggc ccgaagcttt    240
ttaatggctg tggcggaaag ccctcaaaaa cggatgacag acgatgaagt ggggacactt    300
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```
tgggagcgaa ttagccggca ggtagcgatg gagaaaagag tgaaaagaaa aaaacagttg      360
ctttttcttac gtgtggccgg gattgctgct tgcatatcag tgttggcatt gagcagttac      420
tttgttttttt cacttatttc attttatgaa gaaagttctt gttacagttt ggccggtatt      480
tccgagccgg atagcagtaa tgacatacag ctgatttttat cggaaggacg taagttggtt      540
atggatggga aagaaagcag gttgcactac aaggaaggtg gtaagatagc tattagttcc      600
ggaaagaccc aattggacga agaaaatgaa accggttaca atcaattaat tgttccttcg      660
gggaaacgtt ctttcataac tttctccgat ggtacccgag tagccgtaaa tgccaatacc      720
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gaagtagaag tgttgggtac ggaatttaat gtaagtgctt acgatttttac aaaaaaatcaa      900
tcggtggttc tagtatcagg taaagtagaa gtggatacat ataaatatcc taaaaaagtt      960
ctgaagccca atgatatgtt gacttatgac ggacaagacg acgggctacg ggtaaataca      1020
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attgaaatca taaccgaaaa gctatctcga tattatggaa agcgtgtcat acctgattcc      1140
ggattgatag gattgacttg tagtggtaag ctcgatttac gagacgattt acgggatgtt      1200
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<210> 3800
<211> 2232
<212> DNA
<213> B.fragilis

<400> 3800
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agtggtggag gtgccaaggg agtggcccac atcggcgctc tgaaagtgat tgaagaagca      180
ggtatcccta tcgattatat tgtcggaacc agtatggggt ccatcatcgg cgggctttat      240
tccatcggtt atactcccca tcagctcgat agcatggtca atcatcagaa ttggcctctc      300
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acctacgtcc tctctgttcc tttaaagaag aatctgaagg ccaatgtgtt cggaggcgtt      420
atcaaaggcc agaatctggc caatcttttt tcggaactga cagtcggtta tcacgactcc      480
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cccggcgtat tcactccggt gcgcctgggt gataagattc ttgtggacgg tggcatgaaa      660
aataatttcc cgaccaacat agcccgtacc atgggagctg atgtcattat cggtgtcgat      720
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tacaatacgt acaacaaggg atatttccct tccaagggga ccgatgtgca gggacgctac      1740
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aatttcgggc actatctgcc tcaacaactt ccttttgccg gcatcacgaa tctggagatt      1980
gtggacaact ctgttctggt gacaagcctg aagttgcggc agcgtatcgg tagcaagaac      2040
tatgtcacct ttaccggaaa cgtggctttc cggaatgata actttttga tatctgggga      2100
```

```
gcaaaaccgg tttggggcgg tagtgtggga tatggttacg atagtctgtt cggtccgctc    2160
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tatgtctttt ga                                                        2232
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<210> 3801
<211> 591
<212> DNA
<213> B.fragilis

<400> 3801

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tatcagtacg gatgccgttt tacgacggat acagagatgg tgaaagattg tgttcaagat     180
gtttttgtga atgtttatag gcagaaggat aggtactctt ctcctccgga taatgttaaa     240
atctacttaa tgtcttcatt aagaaattct attttaatg ttttcaataa agggaatttg      300
catgacactt atatctccaa tatcaattat gaattcgatt tgtcggttga agaaaaactg     360
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tctcccagac agcgagagat tatttactat cgttttttttg aaggattaga ttacagtgcc    480
atttgtgaat tgatggggct taattatcag tcagcctata atttacttca gcgttctctc     540
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```

<210> 3802
<211> 1314
<212> DNA
<213> B.fragilis

<400> 3802

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ctcgtttctc catcaaacgt cagtagcgtc tgggcaaaag atttcgttgt agttattgac     180
gccggacatg gcggtcacga tcccggagcc atcggaaaga tatccaaaga aaagaatatc     240
aatctgaaag tagcattgaa attgggtaat ctgatcaaac aaaactgcaa tgatgtgaag     300
gtggtctata cccgtagcaa agatgtattt ataccacttg accgccgtgc agagattgcc     360
aacaatgcaa aagccgacct gtttatttca atccacacta acgctctggc caataaccgg     420
accgcaaaag gtgcttctac atggacatta ggtctagcca aatcagacgc caacctagaa     480
gtggccaaac gggagaactc tgtaatctta tatgaagatg attacaaaac tcgttacgcc     540
ggatttaatc ccaattccgc tgaatcgtat attatcttcg aatttatgca agacaaatat     600
atggagcaga gtgtacactt ggcttcattg gttcaaaaac aattccgcca tcactgtaaa     660
cgggtggacc ggggagtaca tcaggccgga ttccttgtat tgaaggctag tgccatgcca     720
agcattctgg ttgaactcgg ttttatctct acgcctgaag aagaacgtta tcttaataca     780
gaagaaggaa gttctacttt ggcaaaaggt atatatcggg catttctctc ttataaaaga     840
gaacacgaaa tccgtttgac aggcagcagc cgcactgcac ttcccaatga tgatgaagta     900
accgatactg aggttgcaca gatagacagc acagaaagcg aaaacaaaaa gccccaaaat     960
actccacgca ccgacaagct tgtaacagaa gcaaaaactc aacgcccaat tgttgtagaa    1020
agcacaacaa acgactctga aattacgttt aagatacaaa tactgacctc ttcacgtcca    1080
ctatctaaaa atgataaacg actgaaggga ttgaaagatg tagattatta caaggaaaat    1140
ggactataca aatacactta cggggcatcg tccgattata ataaggtatt acggacacgc    1200
cgtaatacag tcactccatt atttaaggat gccttcatca ttgcattccg caacggagaa    1260
aagatgaata tcaacgaggc tatagccaat tttaagaaaa gaagaaataa ataa          1314
```

<210> 3803
<211> 297
<212> DNA
<213> B.fragilis

<400> 3803

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atcaaacaaa aaggaggatt aatcatggca caacaagttc aatcagaaat cagatattta      60
actccgcctt cagtagacgt taaaaagaaa aaatactgcc gtttcaaaaa aagcggtatc     120
aagtatatcg actacaaaga tcctgaattc ttgaagaaat tcttgaatga acaaggtaag     180
```

```
atccttccgc gccgtatcac cggtacttct ttgaagttcc agcgtcgtat tgcgcaggct    240
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<210> 3804
<211> 1344
<212> DNA
<213> B.fragilis

<400> 3804
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ttggctgttt ctcaggaagg gtttaataca ttgcaatctt ataatgtagg cgaaaagtat    180
acagcagatt tatggataca acaggggggc ttgaagtcaa ctgccagtgt agtaagtttt    240
tctgtggaca aagctttgct cgattcaatg aatattgccg atggaacctc atatgaactt    300
cttcctgctg actgttatca attaacaaaa agttctgtcg atattcccgc aaacgaaagg    360
ctgttgaaag gtgagctcac ttacgacccg gctaagatac aagagctctc cggatatgat    420
catttgaaat atgtgttgcc tttacgtgct acatccagtg gaatgccttt tgtttcagga    480
cgttctgttg tgttgttggg ttttaaagtt tcagaaccga ttgtaactat tatgaatgcc    540
ggagtagaag agatcaacct ggcagaagta aaggagttac ctgtacagat cggggtccca    600
ttcaccaata aatgggaaat cagctgtcgc ttggaaagcc gccagtcggt gattgatgcc    660
tataatacgg ctcacggtac ttatttcagc atgcttccgt ccgatgccta tgcggctccc    720
gaaactccga ttcttcatag tggagtaaat caggttacag caacttataa actgaaagac    780
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ctttctaaaa cagattggaa aattgtatcg ttcactaccg aggaggcttc gggtgaaggc    960
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gtcaaaatag ctcagataga gttattgcca cgtgggcgag gaagtaataa tccgataaag   1140
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tttacgaatc aggatgccgc actaaaatat tatgtaaaat catccacggc acgctatatc   1260
aaattggtca ttccggatgg ggtgggtaat ggtacagtag ctgcgattcg tgaattggat   1320
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```

<210> 3805
<211> 1377
<212> DNA
<213> B.fragilis

<400> 3805
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gaagacttgt tcagcctcat ccgtattccc agtatcagtg cattgccgga acaccatgat    120
gatatgctgg catgcgcaca acgctggaca caattgctac tcaaggccgg agcagacgaa    180
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aatgctaaaa cagtgttgat atacgctcat tatgacgtga tgcctgccga gcccctcgac    300
ctatggaaga gccaaccgtt cgaaccggaa atacgtgacg gacatatttg ggcacgcgga    360
gccgacgatg ataagggaca agcatttatc caggtgaaag catttgaata tctcgtaaaa    420
tacaacctgc tggagaataa cgtaaagttt atctttgagg gagaagaaga gattggttca    480
ccaagcctgg aagctttctg tgaagagcat aaagaattac taaagccga tgttatcttg    540
gtatcagata ccagtatgtt gggagccgac cttccttcac taaccaccgg actgcgtggt    600
ctggcttact gggaaatcga ataacaggt cctaaccgtg acctccattc gggacacttt    660
ggtggagcgg tagccaatcc gatcaacgta ctttgtggta tgttaagtaa ggtaattgat    720
actgacggac gtatcacaat acccggattc tatgatgctg tagaagaagt tccacaagca    780
gaacgagaaa tgattgccca catcccttt aatgaagaaa atataagga agccatcgga    840
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tcattcgaca tttgtggtat ttggggaggt tacaccgggg aaggttctaa aactgtactc    960
ccttccaaag cctatgccaa agtatcatgc cgcctggttc cccatcaaga tcatcatgtg   1020
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gtgactgcca tgcatggagg ccagggatat gtatgtccca tatcactgcc tgcttatcag   1140
gcagccgaaa aaggattcga aatagctttc gggaaaaagc cattggcagt acgccgagga   1200
```

```
ggaagtatac ctattatatc aactttcgaa caggtgttag gtataaaaac tgtattaatg    1260
ggatttggcc tagaatcgga tgctatccat tctcctaacg aaaacttctc tttggatata    1320
ttcagaaaag gaattgaagc tgtagtagaa ttccatctga tatatggaaa gaaataa       1377
```

<210> 3806
<211> 900
<212> DNA
<213> B.fragilis

<400> 3806

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caaaacatga aactcattac aaaagaagtc aggataggaa tagcaggtgt tgcggccttg     60
tgcttactcg tcttcgggat caattatctg aaaggcatca acatgtttaa gcctgccagc    120
tatttttatg taaaattcca taatgtaaac ggtctggcac aatcgagtcc ggtattcgct    180
gatggtgtcc gtgtaggtat cgtccgtgat attgcttacg attacaatca accggaaaat    240
gtaatagtgg aagtagaagt agatactgat ttacgcatac cgaaaggaag ctcagccgaa    300
ctggtacccg aactgatggg aggagtaaga atgaatattt tattggccaa caatcctcgc    360
gaacgctata cagtaggcga tacgattccg ggaacgctaa acaacggcat gatggagaaa    420
gttgcagcaa tgatgcccgc tgtcgaaaag atgttgccca aattagactc tatccttact    480
tcactgaaca caatcatggc agatcaaagc attccggcaa ctctgcattc tattgaaaag    540
acaacagcca atctcgaagt taccagccgt caattgaaag tattgatgaa caatgatatc    600
ccacaattaa caggaaagct caatactatc ggtgataact ttgttgtaat cagcggcaat    660
ctgaaagaaa ttgattatgc tgccacattc aaaaaaatag acaccactct tagcaacgta    720
aaaatgctta cagaaaaact taacagcaaa gacaacactg tcggattact gttaaacgat    780
ccacaattat acaataacct gaaccaaaca accattaatg cagcaaatct gcttgaagac    840
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<210> 3807
<211> 894
<212> DNA
<213> B.fragilis

<400> 3807

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actgttacga cccaagtaga cggaataaca tcggctactt caaagcccaa tcaagtatct    180
ttcaacggca ccattgtatt gcctccccaa cgtcaagcta cggtggccct cactatggga    240
ggagtagtga aacacacctc actcttacca gggcaacaag tacggcaagg tgccctgctg    300
gcaacactcg agaatcccga cttcatcgca ctgcaacaaa cctatctcga cagccatgcc    360
caagcagaat atctgcaggc cgaatatgaa cggcaaaaaa ctctctcgac cgaacaagcc    420
gcttcgcaaa agaagtttca acagagcaaa gcagactatc tgtcaatgaa aagcaagctg    480
gaagctacgg cagcacagct taccctattg ggcatcgtcc cggaagagtt gctgaaaagc    540
ggcattcagc ccttgctaca ggtaaaggct cccatcagtg gttatatcag cgatgtggcg    600
atgaatatcg gtaaatacat ccaaccgggt gaagcacttt gtgaggtcat cgacaaatca    660
gcccccctgc tttgcctgac aacttatgaa aaagacctgg cagatatgaa agtaggtagt    720
cccgtccagt ttcgggtcaa cggtatgggc aaaacagtgt tcaaagctac cctggtctcc    780
atcggtcaga aggtggatga agtaagtcgt tcgctcgaag tatatgcccg tatcgatgat    840
gtcaaccaac agtttcgtcc cggcatgtat gtaacggcga gaatacagaa ataa          894
```

<210> 3808
<211> 1203
<212> DNA
<213> B.fragilis

<400> 3808

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aacatgatga acacaaagtc ttttttcatg gttgccattg gcgttttttgt tttggcatct     60
tgtaatttaa atcaagtcga ccaaacaggt ctgttaaccg cttccgttcg tgatgcactt    120
aattcgccgg caactttgtc tattgctgat gagatagagt cagttgaata tatcccttttg    180
gaaatgacca atgatgatgc ctcattgata gacggtgtgg tagactttgc catcacaagc    240
aaatacattt atgtattggt gggcaaggaa gcccgtatcg tactgttcga tcgtcaagga    300
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cactttttgc gtacattcct tcgccaaggc caaggtcccg atgactttaa tggtatgata   360
ggttttatac aggctgatga ggctgataat cgtttctatg ttatcggcaa taaggttggc   420
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gatttctatt cgccgttggt accccgtgaa gattcaggct ttacttttgg agtaatgggt   660
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caggttgtta caccttatga gatagaaaca tttaaagaac aaactcaaat tactgtacca   1140
caagaattgc aaaaaagaaa tgccaatgaa aatccgattt tcatcatata taagataaaa   1200
taa                                                                 1203
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<210> 3809
<211> 1053
<212> DNA
<213> B.fragilis

<400> 3809

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cagcaggcac gggaagtagc gaccgcacac ttcggacagg gagtctacat acgcggactg   180
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tacaaactcg gattccgctc attcgttctc cagggaggcg aagatccgaa acggtcggac   360
aatgatatgg aggagatcat tgcggaaatc cgccggcgat atcccgaatg tgccatcacg   420
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gaaatgtcca acgaaagacg tatcaaatgc cttcaggaac tcaaacgaat cggtttccag   600
accgggacag gcatcatggt gggaactcct cgtcaaagag tggaatttct gatagaggat   660
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ctgtcgccta tcattgtaag aaacaaatat aacctgtacg accagaaagt agctttcggt   960
gccgaagcgg ccgaaggact ggccttattg gaaaagcaac tgacagcggt cggatatcac   1020
atcgactaca gccggggaga ttataacaac taa                                1053
```

<210> 3810
<211> 192
<212> DNA
<213> B.fragilis

<400> 3810

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ttgatcccga agacgagtaa gcacaaggcc gcaacacctg ctattcctat cctgacttct   60
tttgtaatga gtttcatgtt ttgttattta gtctttttat ttatttcttc ttttcttaaa   120
attggctata gcctcgttga tattcatctt ttctccgttg cggaatgcaa tgatgaaggc   180
atccttaaat aa                                                       192
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<210> 3811
<211> 1050
<212> DNA
<213> B.fragilis

<400> 3811

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aacgccccga aaagaaaaat gaataagata tctgtcgtta tattgaactg gaacggttgc     60
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gtctgtgtgg ctgataacgg ttctacggat cagtcggtgg agatgctgcg ccgcgagttt    180
ccctcggtac gccggattct gctggatggg aatcatggtt ttgcagatgg gtacaatctt    240
gccctccggc aggtggaggc cgagtatgtg gtgctgctca attccgatgt cgaggtgacc    300
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cagccgaaga tacgcagttg gcgacaaaaa gaatggttcg aatatgccgg agctgccggc    420
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gcggaccggg ggcaatatga caccgtactg ccgatattct gggctaccgg tgcagccatg    540
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<212> DNA
<213> B.fragilis

<400> 3812

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gctgactcta tcgcagcagt agaagcagct gcagctgaag cagcagctca ggcagctgat    180
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<213> B.fragilis

<400> 3813

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gcgcaggatt tctcttatca aaagaatgca gaggaaacgg aactgcaagt aaaaatcgtt    180
gcggctgata aaacaagtga agaccggatt gtcttcatcg agtcgcccgc acggccgacg    240
aagcccggaa gctcttcggc accgttttat aaaattaaag ataataaaat caccatcaag    300
ggtggcagca atctgccaa agccacaatc ctggtttatc cccggaaagt gggaacgaat    360
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<400> 3814

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ggattgcatg ccatcgggct ggaagctctc atcatcacgg cagctgccgt aaccggaagc    180
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